PB83-127118

Regulations and Non-Regulatory Revisions to State Implementation Plan: North Carolina

Atlantic Environmental Associates, Inc.
Waltham, MA

Prepared for

Environmental Protection Agency
Research Triangle Park, NC

Oct 81

U.S. Department of Commerce
National Technical Information Service
NTIS

United States
Environmental Protection
Agency

Office of Air Quality
Planning and Standards
Research Triangle Park NC 27711

EPA-450/2-81-053
July 1981

PB83-127118

Air

EPA

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NATIONAL TECHNICAL
INFORMATION SERVICE
U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA 22161

EPA-450/2-81-053

Regulations and Non-Regulatory Revisions to State Implementation Plan: North Carolina

By

Atlantic Environmental Associates, Inc.
59 Vernon Street
Waltham, MA 02154

Contract No. 68-02-3565

EPA Project Officer: Willis P. Beal

Prepared for

U.S ENVIRONMENTAL PROTECTION AGENCY
Control Programs Development Division
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

July 1981

TECHNICAL REPORT DATA

(Please read Instructions on the reverse before completing)

1. REPORT NO.
EPA-450/2-81-053

2.

3. RECIPIENT'S ACCESSION NO.
PB83 127118

4. TITLE AND SUBTITLE
Regulations and Non-Regulatory Revisions to State Implementation Plan: North Carolina

5. REPORT DATE
October, 1981

6. PERFORMING ORGANIZATION CODE

7. AUTHOR(S)

8. PERFORMING ORGANIZATION REPORT NO.

9. PERFORMING ORGANIZATION NAME AND ADDRESS

Atlantic Environmental Associates, Inc.
59 Vernon Street
Waltham, MA 02154

10. PROGRAM ELEMENT NO.

11. CONTRACT/GRANT NO.
68-02-3565

12. SPONSORING AGENCY NAME AND ADDRESS

Control Programs Development Division
Office of Air Quality Planning and Standards
Research Triangle Park, NC 27711

13. TYPE OF REPORT AND PERIOD COVERED

14. SPONSORING AGENCY CODE

15. SUPPLEMENTARY NOTES
EPA Project Officer: Willis P. Beal

16. ABSTRACT

This document has been produced in compliance with Section 110(h) of the Clean Air Act, as amended in 1977, which mandates periodic publication of State Implementation Plan (SIP) requirements. The first section of the document comprises the Federally approved SIP regulations. It consists of the EPA-approved State and/or local air pollution control regulations cited by reference in the Federal Register; regulations promulgated as of August 1, 1981 have been included in this document.

The present compilation constitutes an update of a previous documentation of regulations as of July 1, 1979. State and/or local air quality regulations which have not been Federally approved as of August 1, 1981, are not included. However, any omissions of regulations from this document in no way affects the ability of the respective Federal, State, or local agencies to enforce such regulations. A summary sheet of the regulatory revisions is provided to give a quick historical assessment of the changes.

The second part of the document contains the text of non-regulatory SIP revisions approved by EPA up to August 1, 1981, excluding notices or certifications of public hearings and technical support data. A complete tabulation of these revisions is also provided.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Air Pollution State Regulations State Implementation Plans		

18. DISTRIBUTION STATEMENT Release Unlimited	**19. SECURITY CLASS** *(This Report)* Unclassified	**21. NO. OF PAGES** 137
	20. SECURITY CLASS *(This page)* Unclassified	**22. PRICE**

EPA Form 2220-1 (Rev. 4-77) PREVIOUS EDITION IS OBSOLETE

This report has been reviewed by the Control Programs Development Division of the Office of Air Quality Planning and Standards, EPA, and approved for publication. Mention of trade names or commercial products is not intended to constitute endorsement or recommendation for use. Copies of the entire document are available for inspection and copying at EPA Headquarters (401 M Street SW, Washington, DC 20460), EPA's Office of Air Quality Planning and Standards (Room 826, 411 West Chapel Hill Street, Durham, NC 27701), and the appropriate EPA Regional Offices. Documents containing only the regulatory portions of each State Implementation Plan may be ordered for a nominal fee from the National Technical Information Services, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161.

PREFACE

This document has been produced in compliance with Section 110(h) of the Clean Air Act, as amended in 1977, which mandates periodic publication of State Implementation Plan (SIP) requirements. The first section of the document comprises the Federally approved SIP regulations. It consists of the EPA approved State and/or local air pollution control regulations cited by reference in the Federal Register; all regulations Federally promulgated as of August 1, 1981 have been included.

The present compilation constitutes an update of a previous documentation of regulations as of July 1, 1979.* State and/or local air quality regulations which have not been Federally approved as of August 1, 1981 are not included. However, any omissions of regulations from this document in no way affects the ability of the respective Federal, State or local agencies to enforce such regulations.

This document is not intended to provide a tool for determining the enforceability of any given regulation. Rather, it is intended to provide a comprehensive compilation of those regulations which are incorporated by reference into Title 40, Part 52, of the Code of Federal Regulations (CFR). The exclusion of a Federally approved regulation from this document does not diminish the enforceability of the regulation. Similarly, the inclusion of a given regulation in this document does not, in itself, render the regulation enforceable by either the State or EPA.

The regulations have been organized in this document according to the official State/local agency format. However, since State air quality regulations vary widely in their organization, content, and language, a standardized subject index has been added. The index listings consist of both pollutant and activity oriented categories to facilitate usage. For example, regulations which apply to copper smelters may be found under sulfur compounds (50.2), particulate matter process weight (50.1.1), or copper smelters (51.15). Federal regulations pertaining to a given State are not included herein but can be found under Title 40 Code of Federal Regulations, Part 52.

Additionally, a summary sheet of the regulatory revisions is included to provide a quick historical assessment of the changes. These summary sheets contain the date of submittal to EPA of each revision and the Federal Register publication date on which the revision was approved by EPA. A brief description of the regulation which was submitted is also included.

In accordance with the Act, the second part of the document contains non-regulatory SIP revisions approved by EPA up to August 1, 1981. All approved non-regulatory revisions listed under Identification of Plan in the CFR are included except notices or certifications of public hearings, and technical support data. Non-regulatory submittals which have only received EPA approval on selected elements are included in their entirety with an accompanying indication of the status of Federal actions on the non-approved elements. The non-regulatory revisions have been organized in this document according to the date of publication of EPA approval in the Federal Register. For historical completeness, a complete tabulation of these revisions is provided at the beginning of this second section.

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* Regulations and Non-Regulatory Revisions to State Implementation Plan: North Carolina, EPA-450/2-80-040, prepared under Contract 68-02-3388, July 31, 1980.

SUMMARY OF
EPA-APPROVED REGULATORY REVISIONS TO STATE OF NORTH CAROLINA SIP
BETWEEN JULY 1, 1979 AND JULY 31, 1981

Publication of Approval	Submittal Date	Page	Document Description
04/17/80	06/15/79	45FR26043	New regulations and amendments for Volatile Organic Compounds.
09/10/80	05/02/80	45FR59579	Revised regulations: 2D.0903, 2D.0931 adopted on 04/10/80, revising volatile compounds section for Mecklenburg County ozone nonattainment area.
03/19/81	05/02/80	46FR17556	Addition to Regulation 2H.0608.
04/13/81	05/02/80	46FR21600	Revision of Regulations 2D.0302, .0501, .0524, .0525, .0603, new Regulation 2H.0603(f), lead standard, revised ozone standard.
05/15/81	02/14/78	46FR26770	Regulation 2D.0527 on SO_2 and sulfuric acid mist from the roasting of spodumene ore - Sept. 29, 1978 approval withdrawn of limit on acid mist emissions.
05/15/81	03/22/77	46FR26770	Revision to eliminate the 20% limit for existing sources - visible emissions (Section .0521).
05/15/81	04/19/79	46FR26770	Revision to Regulation 2D.0508(b) approved - Set opacity limit for existing Kraft Pulp Mill recovery furnaces (Regulation 2D.0508(b)).

TABLE OF CONTENTS

STATE REGULATIONS

Revised Standard Subject Index	Section Number	Title	Page
	Subchapter 2D		1
(1.0)	Section .0100	Definitions	1
(1.0)	.0101	Words	1
(1.0)	.0102	Phrases	1
(2.0)	.0103	Copies of Referenced Federal Regulations	3
(2.0)	Section .0200	Air Contaminant Sources	4
(2.0)	.0201	Classification of Air Contaminant Sources	4
(3.0)	.0202	Registration of Air Contaminant Sources	6
(8.0)	Section .0300	Air Pollution Emergencies	6
(2.0)	.0301	Purpose	6
(8.0)	.0302	Episode Criteria	7
(8.0)	.0303	Emission Reduction Plans	9
(8.0)	.0304	Preplanned Abatement Program	9
(8.0)	.0305	Emission Reduction Plan: Alert Level	10
(8.0)	.0306	Emission Reduction Plan: Warning Level	11
(8.0)	.0307	Emission Reduction Plan: Emergency Level	13
(4.0)	Section .0400	Ambient Air Quality Standards	15

Revised Standard Subject Index	Section Number	Title	Page
(2.0)	.0401	Purpose	15
(4.2)	.0402	Sulfur Oxides	16
(4.1)	.0403	Suspended Particulates	16
(4.5)	.0404	Carbon Monoxide	16
(4.6)	.0405	Photochemical Oxidants	17
(4.4)	.0406	Hydrocarbons	17
(4.3)	.0407	Nitrogen Dioxide	18
(4.7)	.0408	Lead	18
(2.0)	Section .0500	Emission Control Standards	18
(6.0)	.0501	Compliance With Emission Control Standards	18
(2.0)	.0502	Purpose	23
(51.5)	.0503	Control of Particulates From Fuel Burning Sources	23
(51.5)	.0504	Particulates From Wood Burning Indirect Heat Exchangers	24
(51.9)	.0505	Control of Particulates From Refuse Burning Equipment	25
(51.8)	.0506	Control of Particulates From Hot Mix Asphalt Plants	26
(51.1)	.0507	Particulates From Chemical Fertilizer Manufacturing Plants	26
(51.14	.0508	Control of Particulates From Pulp and Paper Mills	28
(51.21)	.0509	Particulates From Mica or Feldspar Processing Plants	28
(51.3)	.0510	Particulates: Sand, Gravel, Crushed Stone Operations	29
(51.21)	.0511	Particulates, SO (2) From Lightweight Aggregate Processes	30

Revised Standard Subject Index	Section Number	Title	Page
(51.3)	.0512	Particulates From Wood Products Finishing Plants	30
(51.3)	.0513	Control of Particulates From Portland Cement Plants	30
(51.4)	.0514	Control of Particulates From Ferrous Jobbing Foundries	31
(51.21)	.0515	Particulates From Miscellaneous Industrial Processes	32
(51.6)	.0516	Sulfur Dioxide Emission From Fuel Burning Installations	33
(51.18)	.0517	Emissions From Plants Producing Sulfuric Acid	33
(50.4)	.0518	Miscellaneous Volatile Organic Compound Emissions	33
(51.7)	.0519	Control of Nitrogen Dioxide Emissions	35
(51.13)	.0520	Control and Prohibition of Open Burning	35
(50.1.2)	.0521	Control of Visible Emissions	39
(50.6)	.0522	Control and Prohibition of Odorous Emissions	40
(51.9)	.0523	Control of Conical Incinerators	41
(10.0)	.0524	New Source Performance Standards	42
(11.0)	.0525	National Emission Standards For Hazardous Air Pollutants	45
(51.27)	.0527	Emissions from Spodumene Ore Roasting	45
(9.0) (13.0)	Section .0600	Air Contaminants; Monitoring, Reporting	46
(2.0)	.0601	Purpose and Scope	46
(1.0)	.0602	Definitions	46
(10.0)	.0603	Sources Covered By New Source Performance Standards	47

Revised Standard Subject Index	Section Number	Title	Page
(2.0)	.0604	Sources Covered By Implementation Plan Requirements	49
(50.1.2)	.0605	Wood and Wood Fossil Fuel Combination Units	51
(51.2)	.0606	Other Coal or Residual Oil Burners	52
(9.0) (13.0)	.0607	Exceptions To Monitoring and Reporting Requirements	53
(2.0)	.0608	Program Schedule	53
(3.0) (9.0)	.0609	Monitoring Condition in Permit	54
(2.0)	.0610	Delegation	54
(2.0)	Section .0700	Post Attainment Policy	54
(2.0)	.0701	Applicablity	54
(1.0)	.0702	Definitions	55
(2.0)	.0703	Source Categories	55
(15.0)	.0704	Enforcement Procedures	56
(2.0)	.0705	Documentation For Special Orders	58
(16.0)	.0706	Public Participation	59
(2.0)	.0707	Extensions	60
(10.0)	Section .0800	Complex Sources	61
(2.0)	.0801	Purpose and Scope	61
(3.0)	.0802	Permits	62
(12.0)	.0803	Highway Projects	62
(10.0)	.0804	Airport Facilities	63

Revised Standard Subject Index	Section Number	Title	Page
(50.4)	Section .0900	Volatile Organic Compounds	64
(2.0)	.0901	Definitions	64
(2.0)	.0902	Applicability	67
(13.0)	.0903	Recordkeeping, Reporting, Monitoring	68
(7.0)	.0904	Malfunctions, Breakdowns, Upsets	69
(16.0)	.0905	Petition for Alternative Controls	69
(2.0)	.0906	Circumvention	71
(6.0)	.0907	Equipment Installation Compliance Schedule	71
(6.0)	.0908	Equipment Modification Compliance Schedules	72
(6.0)	.0909	Low Solvent Content Coating Compliance Schedules	73
(6.0)	.0910	Alternate Compliance Schedules	74
(6.0)	.0911	Exception for Compliance Schedules	75
(2.0)	.0912	General Provisions on Test Methods and Procedures	75
(51.24)	.0913	Determination of Volatile Content of Surface Coatings	77
(9.0)(50.4)	.0914	Determination of VOC Emission Control System Efficiency	79
(51.24)	.0915	Determination of Solvent Metal Cleaning VOC Emissions	79
(51.16)	.0916	Determination of VOC Emissions from Bulk Gasoline Terminals	81
(50.4)(51.21)	.0917	Automobile and Light-Duty Truck Manufacturing	86
(51.22)	.0918	Can Coating	87

Revised Standard Subject Index	Section Number	Title	Page
(51.22)	.0919	Coil Coating	88
(51.22)	.0920	Paper Coating	88
(51.22)	.0921	Fabric and Vinyl Coating	89
(51.22)	.0922	Metal Furniture Coating	90
(51.22)	.0923	Surface Coating of Large Appliances	91
(51.22)	.0924	Magnet Wire Coating	92
(51.16)	.0925	Petroleum Liquid Storage	92
(51.16)	.0926	Bulk Gasoline Plants	94
(51.16)	.0927	Bulk Gasoline Terminals	97
(51.16)	.0928	Gasoline Service Stations Stage I	98
(51.15)	.0929	Petroleum Refinery Sources	101
(51.24)	.0930	Solvent Metal Cleaning	103
(51.23)	.0931	Cutback Asphalt	107
	Subchapter 2H		109
(3.0)	Section .0600	Air Quality Permits	109
(2.0)	.0601	Purpose and Scope	109
(1.0)	.0602	Definitions	111
(3.0)	.0603	Applications	112
(3.0)	.0604	Final Action on Permit Applications	113
(3.0)(15.0)	.0605	Issuance, Revocation and Enforcement of Permits	114
(2.0)	.0606	Delegation of Authority	114
(2.0)	.0607	Copies of Referenced Federal Regulations	115
(3.0)	.0608	Permits for Sources Impacting Nonattainment Areas	115

REVISED STANDARD SUBJECT INDEX

1.0 DEFINITIONS
2.0 GENERAL PROVISIONS AND ADMINISTRATIVE PROCEDURES
3.0 REGISTRATION CERTIFICATES, OPERATING PERMITS AND APPLICATIONS
4.0 AIR QUALITY STANDARDS (PRIMARY AND SECONDARY)
  4.1 PARTICULATES
  4.2 SULFUR DIOXIDE
  4.3 NITRIC OXIDES
  4.4 HYDROCARBONS
  4.5 CARBON MONOXIDE
  4.6 OXIDANTS
  4.7 OTHERS
5.0 VARIANCES
6.0 COMPLIANCE SCHEDULES
7.0 EQUIPMENT MALFUNCTION AND MAINTENANCE
8.0 EMERGENCY EPISODES
9.0 AIR QUALITY SURVEILLANCE AND SOURCE TESTING
10.0 NEW SOURCE PERFORMANCE STANDARDS
11.0 NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS
12.0 MOTOR VEHICLE EMISSIONS AND CONTROLS
13.0 RECORD KEEPING AND REPORTING
14.0 PUBLIC AVAILABILITY OF DATA
15.0 LEGAL AUTHORITY AND ENFORCEMENT
16.0 HEARINGS, COMPLAINTS, AND INVESTIGATIONS
17.0 PREVENTION OF SIGNIFICANT DETERIORATION
18.0 AIR QUALITY MAINTENANCE AREA
19.0 EMISSION OFFSET POLICY
20.0 MAJOR STATIONARY SOURCES
21.0 - 49.0
RESERVED FOR FUTURE EXPANSION OF COMMON INDEX
50.0 POLLUTANT - SPECIFIC REGULATIONS
  50.1 PARTICULATES

        - 50.1.1 PROCESS WEIGHT
        - 50.1.2 VISIBLE EMISSIONS
        - 50.1.3 GENERAL
    - 50.2 SULFUR COMPOUNDS
    - 50.3 NITRIC OXIDES
    - 50.4 VOLATILE ORGANIC COMPOUNDS
    - 50.5 CARBON MONOXIDE
    - 50.6 ODOROUS POLLUTANTS
    - 50.7 OTHERS (Pb, Hg, etc.)
- 51.0 SOURCE CATEGORY SPECIFIC REGULATIONS
    - 51.1 AGRICULTURAL PROCESSES (includes Grain Handling, Orchard Heaters, Rice and Soybean Facilities, Related Topics)
    - 51.2 COAL OPERATIONS (includes Cleaning, Preparation, Coal Refuse Disposal Areas, Coke Ovens, Charcoal Kilns, Related Topics)
    - 51.3 CONSTRUCTION (includes Cement Plants, Materials Handling, Topics Related to Construction Industry)
    - 51.4 FERROUS FOUNDRIES (includes Blast Furnaces, Related Topics)
    - 51.5 FUEL BURNING EQUIPMENT (coal, natural gas, oil) - Particulates (includes Fuel Content and Other Related Topics)
    - 51.6 FUEL BURNING EQUIPMENT (coal, natural gas, oil) - SO_2 (includes Fuel Content and Other Related Topics)
    - 51.7 FUEL BURNING EQUIPMENT (oil, natural gas, coal) - NO_2 (includes Fuel Content and Other Related Topics)
    - 51.8 HOT MIX ASPHALT PLANTS
    - 51.9 INCINERATION
    - 51.10 NITRIC ACID PLANTS
    - 51.11 NON-FERROUS SMELTERS (Zn, Cu, etc.) - Sulfur Dioxide
    - 51.12 NUCLEAR ENERGY FACILITIES (includes Related Topic)
    - 51.13 OPEN BURNING (includes Forest Management, Forest Fire, Fire Fighting Practice, Agricultural Burning and Related Topics)
    - 51.14 PAPER PULP; WOOD PULP AND KRAFT MILLS (includes Related Topics)
    - 51.15 PETROLEUM REFINERIES
    - 51.16 PETROLEUM STORAGE (includes Loading, Unloading, Handling and Related Topics)
    - 51.17 SECONDARY METAL OPERATIONS (includes Aluminum, Steel and Related Topics)
    - 51.18 SULFURIC ACID PLANTS

51.19 SULFURIC RECOVERY OPERATIONS

51.20 WOOD WASTE BURNERS

51.21 MISCELLANEOUS TOPICS

51.22 COATING OPERATIONS (Can, Coil, Paper, Fabric, Vinyl, Metal, Wire, Surface Coating)

51.23 CUTBACK ASPHALT

51.24 SOLVENT METAL CLEANING

NORTH CAROLINA ADMINISTRATIVE CODE

SUBCHAPTER 2D - AIR POLLUTION CONTROL REQUIREMTNTS

SECTION .0100 - DEFINITIONS

.0101 WORDS

The definition of any word used in Regulations of this Subchapter shall be the same as given in Article 21, Chapter 143 of the General Statutes of North Carolina, as amended. The following words which are not defined in said article, shall be construed to have the following meaning:

(1) "Dustfall" means particulate matter which settles out of the air and is expressed in units of grams per square meter per 30-day period.

(2) "Garbage" means any animal and vegetable waste resulting from the handling, preparation, cooking and serving of food.

(3) "Incinerator" means a device designed and engineered to burn solid, liquid, or gaseous waste material.

(4) "Opacity" means that property of a substance tending to obscure vision and is measured in terms of percent obscuration.

(5) "Refuse" means any garbage, rubbish, or trade waste.

(6) "Rubbish" means solid or liquid wastes from residences or dwellings, commercial establishments, or institutions.

(7) "Smoke" means small gas-borne particles resulting from incomplete combustion, consisting predominantly of carbon, ash, and other burned or unburned residue of combustible materials that form a visible plume.

History Note: Statutory Authority G.S. 143-215.3(a) (1);
143-213;
Eff. February 1, 1976.
Amended Eff. December 1, 1976.

.0102 PHRASES

The definition of any phrase used in Regulations of this Subchapter shall be the same as given in Article 21, Chapter 143 of the General Statutes of North Carolina, as amended. The following phrases which are not defined in said article, shall be construed to have the following meaning:

(1) "Ambient air" means that portion of the atmosphere outside of buildings and other enclosures, stacks, or ducts, and which surrounds human, animal or plant life, or property.

(2) "Combustible material" means any substance which, when ignited will burn in air.

(3) "Fuel burning equipment" means equipment whose primary purpose is the production of thermal energy or power from the combustion of any fuel. Such equipment is generally that used for, but not limited to, heating water, generating or circulating steam, heating air as in warm air furnace, furnishing process heat entirely through transfer by fluids or transmissions through process vessel walls.

(4) "Open burning" means any fire wherein the products of combustion are emitted directly into the outdoor atmosphere and are not directed thereto through a stack or chimney, approved incinerator, or other similar device.

(5) "Particulate matter" means any material except uncombined water that exists in a finely divided form as a liquid or solid at standard conditions.

(6) "Rural area" means an area which is primarily devoted to, but not necessarily limited to, the following uses: agriculture, recreation, wildlife management, state park, or any area of natural cover.

(7) "Salvage operation" means any business, trade, or industry engaged in whole or in part in salvaging or reclaiming any product or material, including, but not limited to, metals, chemicals, motor vehicles, shipping containers, or drums.

(8) "Smoke density measuring device":

(a) Ringelmann Chart means the chart published and described in the U.S. Bureau of Mines, Information Circular 8333, and on which are illustrated graduated shades of grey to black for use in estimating the light obscuring capacity of smoke;

(b) The pocket size Ringelmann Chart and other adaptations commonly used by trained smoke inspectors;

(c) Other equivalent standards as may be approved by the commission.

2

(9) "Sulfur oxides" include sulfur dioxide, sulfur trioxide, their acids and the salts of their acids. For purposes of these ambient air quality standards, in Regulation .0402 of this Subchapter, measurements of sulfur dioxide, by the method specified herein, shall be taken to indicate the concentration of sulfur oxides.

(10) "Suspended particulate" means any material, except water in uncombined form that is or has been airborne, and is quantitatively expressed in concentration, i.e., micrograms per cubic meter.

(11) The term "act" means "The North Carolina Water and Air Resources Act."

(12) "Trade wastes" means all solid, liquid, or gaseous waste materials or rubbish resulting from combustion, salvage operations, building operations, or the prosecution of any business, trade, or industry including, but not limited to, plastic products, paper, wood, glass, metal, paint, grease, oil and other petroleum products, chemicals, and ashes.

History Note: Statutory Authority G.S. 143-215.3(a) (1);
143-213;
Eff. February 1, 1976;
Amended Eff. December 1, 1976

.0103 COPIES OF REFERENCED FEDERAL REGULATIONS

Copies of applicable Code of Federal Regulations sections referred to in this Subchapter are available for public inspection at Department of Natural and Economic Resources Field Offices, air quality section. They are: Western Field Office, Interchange Building 159 Woodfin Street, Post Office Box 370, Asheville, North Carolina 28802; North Piedmont Field Office, 8003 Silas Creek Parkway Extension, Winston-Salem, North Carolina 27106; South Piedmont Field Office, 1119 North Main Street, Mooresville, North Carolina 28115; North Central Field Office, 3800 Barrett Drive, Post Office Box 27687, Raleigh, North Carolina 27611; South Central Field Office, Wachovia Building, Suite 714, Fayetteville, North Carolina 28301; Northeastern Field Office, 1502 North Market Street, Post Office Box 1129, Washington, North Carolina 27889; Southeastern Field Office, 3143 Wrightsville Avenue, Wilmington, North Carolina 28401.

Copies of such regulations can be made at these field offices for ten cents ($0.10) per page.

HISTORY NOTE: Statutory Authority G.S. 150A-14;
Eff. December 1, 1976.

Section .0200 - AIR CONTAMINANT SOURCES

.0201 CLASSIFICATION OF AIR CONTAMINANT SOURCES

(a) Purpose. This Regulation is for the purpose of establishing a system for classifying air contaminant sources which will be used by the commission for assigning an appropriate classification to air contaminant sources which the commission believes to be of sufficient importance to justify classification or control.

(b) Scope. This Regulation shall apply to all air contaminant sources, both combustion and non-combustion. The following system for classifying air contaminant sources is hereby established:

(1) "Class I-C" includes all sources of air contamination utilizing fuel burning equipment for the production of thermal energy for power generation for public utilization.

(2) "Class II-C" includes all sources of air contamination utilizing fuel burning equipment for the production of steam, and for other process used at commercial and industrial establishments.

(3) "Class III-C" includes all sources of air contamination utilizing fuel burning equipment for comfort heating at institutions, commercial or industrial establishments, or apartment houses having a central heating system serving more than four apartments.

(4) "Class IV-C" includes all sources of air contamination resulting from the burning of trash, rubbish, refuse or similar materials in incinerators, teepee burners, or similar devices.

(5) "Class V-C" includes all sources of air contamination resulting from the operation of fuel burning equipment for comfort heating.

(6) "Class VI-C" includes all sources of air contamination resulting from the operation of internal combustion engines.

(7) "Class I-I" includes all sources of air contamination resulting from industrial plants engaged in the manufacture of chemicals or allied products whose processes depend on the chemical reaction of two or more compounds and includes, among others, plants producing acids, fertilizer materials, dyestuff, synthetic fibers and industrial gases.

(8) "Class II-I" includes all sources of air contamination resulting from industrial plants engaged in the production of pulp and paper.

(9) "Class III-I" includes all sources of air contamination resulting from the mining and processing of minerals, stone, clay and cement products, and includes, among others, phosphate ore, mica and feldspar operations, stone quarries and crushers, cement plants, concrete mixing plants, and masonry block plants.

(10) "Class IV-I" includes all sources of air contamination resulting from industrial operations utilizing petroleum products, and includes, among others, asphalt mix plants, roofing felt plants, and petroleum products storage areas.

(11) "Class V-I" includes all sources of air contamination resulting from furniture, lumber, or wood product plants.

(12) "Class VI-I" includes all sources of air contamination resulting from textile manufacturing, textile dyeing or finishing plants.

(13) "Class VII-I" includes all sources of air contamination resulting from the shelling, drying, storage, ginning and processing of tobacco, corn, soybeans, peanuts, cotton, fruits, vegetables, or other agricultural products.

(14) "Class VIII-I" includes all sources of air contamination resulting from industries engaged in the porcessing of metals, and includes, among others, smelting, casting foundries, metal working, and other similar operations.

(15) "Class IX-I" includes all sources of air contamination resulting from slaughtering and processing meat, poultry, fish, and similar products, including, among others, plants or facilities for rendering or the recovery of by-products therefrom.

(16) "Class X-I" includes all sources of air contamination resulting from industries which do not fall within the above classifications and these sources shall be controlled pursuant to the requirements of regulations and other provisions of law.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (4);
Eff. February 1, 1976:
Amended Eff. December 1, 1976.

.0202 REGISTRATION OF AIR CONTAMINANT SOURCES

(a) Purpose. This Regulation is to provide for the orderly registration of all air contaminant sources, as applicable regulations or emission control standards are adopted.

(b) Scope. This Regulation shall apply to all air contaminant sources both combustion and non-combustion, as set forth in Regulation .0201 of this Section, "Classification of Air Contaminant Sources," with the exception of classes V-C and VI-C.

(c) Within 60 days after the effective date of a regulation or emission control standard, all persons operating sources of such emissions shall register with the division of environmental management on forms to be made available by the division, the name of the person, company or corporation operating the sources, the address, location, county, and principal officer of the company.

(d) Within 60 days following receipt of the necessary forms, or as this date may be established by the Environmental Management Commission, information shall be supplied concerning the process or processes ncluding, but not necessarily limited to, quantities and kinds of raw materials used, process flow sheets, operating schedules, total weights and kinds of air contaminants released, types and quantities of fuels used, stack heights, and such other information as may be considered essential in evaluating the potential of the source for causing air pollution.

(e) It shall be the responsibility of persons operating air contaminant sources to obtain from the division the needed registration forms.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (4)
Eff. February 1, 1976.

SECTION .0300 - AIR POLLUTION EMERGENCIES

.0301 PURPOSE

Notwithstanding any other provisions of air pollution control regulations or standards, this Section is designed to prevent the excessive buildup of air contaminants during air pollution episodes thereby preventing the occurrence of an emergency due to the effects of these contaminants on the public health.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.3 (a) (12);
Eff. February 1, 1976

.0302 EPISODE CRITERIA

Conditions justifying the proclamation of an air pollution alert, air pollution warning, or air pollution emergency shall be deemed to exist whenever the Director, Division of Environmental Management, determines that the accumulation of air contaminants in any place is attaining or has attained levels which could, if such levels are sustained or exceeded, lead to a threat to the health of the public. In making this determination, the director will be guided by the following criteria:

(1) Air Pollution Forecast. An internal watch by the Division of Environmental Management and local air pollution control agencies shall be activated by a National Weather Service advisory that an atmospheric stagnation advisory is in effect, or the equivalent local forecast of stagnant atmospheric conditions;

(2) Alert. The alert level is that concentration of pollutants at which first stage control actions are to begin. The alert will be proclaimed by the director when any of the following levels is reached at any monitoring site:

- (a) sulphur dioxide -- 800 ug/m^3 (0.3 p.p.m.), 24-hour average;
- (b) particulate -- 375 ug/m^3, 24-hour average;
- (c) sulphur dioxide and particulate combined -- product of sulphur dioxide µg/m^3, 24-hour average and particulate µg/m^3, 24-hour average, equal to 65,000;
- (d) carbon monoxide -- 17 mg/m^3 (15 p.p.m.), eight-hour average;
- (e) ozone -- 400 µg/m^3 (0.2 p.p.m.), one-hour average;
- (f) nitrogen dioxide -- 11^{30} ug/m^3 (0.6 p.p.m.), one-hour average; 282 ug/m^3 (0.15 p.p.m.), 24-hour average; and meteorological conditions are such that pollutant concentrations can be expected to remain at the above levels for 12 or more hours or increase or, in the case of ozone, the situation is likely to reoccur within the next 24-hours unless control actions are taken.

(3) Warning. The warning level indicates that air quality is continuing to degrade and that additional abatement actions are necessary. A warning will be proclaimed by the director when any one of the following levels is reached at any monitoring site:

(a) sulphur dioxide -- 1600 ug/m^3 (0.6 p.p.m.), 24-hour average;

(b) particulate -- 625 µg/m^3, 24-hour average;

(c) sulphur dioxide and particulate combined -- product of sulphur dioxide µg/m^3, 24-hour average, and particulate µg/m^3, 24-hour average, equal to 261,000;

(d) carbon monoxide -- 34 mg/m^3 (30 p.p.m.), eight-hour average;

(e) ozone -- 800 ug/m^3 (0.4 p.p.m.), one-hour average;

(f) nitrogen dioxide -- 2260 ug/m3 (1.2 p.p.m.), one-hour average; 565 ug/m^3 (0.3 p.p.m.), 24-hour average;

and meteorological conditions are such that pollutant concentrations can be expected to remain at the above levels for 12 or more hours or increase or, in the case of ozone, the situation is likely to reoccur within the next 24 hours unless control actions are taken.

(4) Emergency. The emergency level indicates that air quality is continuing to degrade to a level that should never be reached and that the most stringent control actions are necessary. An emergency will be declared by the Governor when any one of the following levels is reached at any monitoring site:

(a) sulphur dioxide __ 2100 ug/m^3 (0.8 p.p.m.), 24-hour average;

(b) particulate -- 875 µg/m^3, 24-hour average;

(c) sulphur dioxide and particulate combined -- product of sulphur dioxide µg/m^3, 24-hour average, and particulate µg/m^3, 24-hour average, equal to 393,000;

(d) carbon monoxide -- 46 mg/m^3 (40 p.p.m.), eight-hour average;

(e) ozone -- 1000 ug/m^3 (0.5 p.p.m.), one-hour average;

(f) nitrogen dioxide -- 3000 ug/m^3 (1.6 p.p.m.), one-hour average; 750 ug/m^3 (0.4 p.p.m.), 24-hour average.

(5) Termination. Once declared any level reached by application of these criteria will remain in effect until the criteria for that level are no longer met. At such time the next lower level will be assumed.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.3 (a) (12);
Eff. February 1, 1976;
Amended Eff. December 1, 1976.

.0303 EMISSION REDUCTION PLANS

(a) Air Pollution Alert. Any person responsible for the operation of a source of air contamination as set forth in Regulation .0305 of this Section, shall take all air pollution alert actions as required for such source of air contamination and shall put into effect the preplanned program for an air pollution alert.

(b) Air Pollution Warning. Any person responsible for the operation of a source of air contamination as set forth in Regulation .0306 of this Section, shall take all air pollution warning actions as required for such source of air contamination and shall put into effect the preplanned program for an air pollution warning.

(c) Air Pollution Emergency. Any person responsible for the operation of a source of air contamination as set forth in Regulation .0307 of this Section, shall take all air pollution emergency actions as required for such source of air contamination and shall put into effect the preplanned program for an air pollution emergency.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.3 (a) (12);
Eff. February 1, 1976.

.0304 PREPLANNED ABATEMENT PROGRAM

(a) Any person responsible for the operation of a source of air contamination as set forth in Regulations .0305, .0306, or .0307 of this Section, or emitting 100 tons per year or more shall prepare a plan, consistent with good industrial practice and safe operating procedures, for reducing the emission of air contaminants into the outdoor atmosphere during periods of an air pollution episode, and shall, by April 20, 1972, submit such plan to the commission for review and approval.

(b) Any person responsible for the operation of a source not set forth in Regulations .0305, .0306, or .0307 of this Section, shall, when requested by the commission in writing, prepare a plan, consistent with good industrial practice and safe operating procedures, for reducing the emission of air contaminants into the outdoor atmosphere during periods of air pollution alert, air pollution warning, and air pollution emergency.

History Note: Statutory Authority G.S. 143-215 .3 (a) (1);
143-215.3 (a) (12);
Eff. February 1, 1976.

.0305 EMISSION REDUCTION PLAN: ALERT LEVEL

(a) General

(1) There shall be no open burning by any person of trade waste, vegetation, refuse, or debris in any form.

(2) The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between 12-noon and 4:00 p.m.

(3) Persons operating fuel burning equipment which requires boiler lancing or soot blowing shall perform such operations only between the hours of 12-noon and 4:00 p.m.

(4) Persons operating motor vehicles should eliminate all unnecessary operations.

(b) Source Curtailment. Any person responsible for the operation of a source of air contamination shall take all required control actions for this alert level as they are listed below:

(1) Coal or oil fired electric power generating facilities:

(A) substantial reduction by utilization of fuels having low ash and sulfur content,

(B) maximum utilization of mid-day (12-noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing,

(C) substantial reduction by diverting electric power generation to facilities outside of alert area;

(2) Coal or oil fired process steam generating facilities:

(A) substantial reduction by utilization of fuels having low ash and sulfur content,

(B) maximum utilization of mid-day (12-noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing,

(C) substantial reduction of steam load demands consistent with continuing plant operation;

(3) Manufacturing industries of the following classification: primary metals industry; petroleum refining and related industries; chemical and allied products industries; paper and allied products industries; glass, clay, and concrete products industries:

(A) substantial reduction of air contaminants from manufacturing operations by curtailing, postponing or deferring production and allied operations;

(B) maximum reduction by deferring trade waste disposal operations which emit solid particles, gases, vapors, or malodorous substances;

(C) reduction of heat load demands for processing;

(D) maximum utilization of mid-day (12-noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing;

(4) Municipal and commercial refuse disposal operations will take control action whereby substantial reduction is created by limiting burning of refuse in incinerators to hours between 12-noon to 4:00 p.m.;

(5) Other persons requested by the commission to prepare a preplanned abatement plan shall take all required control actions for this alert level contained in their plan.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.3 (a) (12);
Eff. February 1, 1976;
Amended Eff. December 1, 1976.

.0306 EMISSION REDUCTION PLAN: WARNING LEVEL

(a) General

(1) There shall be no open burning by any person of trade waste,

refuse, vegetation, or debris in any form;

(2) The use of incinerators for the disposal of solid waste or liquid waste shall be prohibited;

(3) Persons operating fuel burning equipment which requires boiler lancing or soot blowing shall perform such operations only between the hours of 12-noon and 4:00 p.m.;

(4) Persons operating motor vehicles should minimize such use through car pools and increased use of public transportation.

(b) Source Curtailment. Any person responsible for the operation of a source of air contamination shall take all required control actions for this warning level as they are listed below:

(1) Coal or oil fired electric power generating facilities:

(A) maximum reduction by utilization of fuels having the lowest available ash and sulfur content,

(B) maximum utilization of mid-day (12-noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing,

(C) maximum reduction by diverting electric power generating to facilities outside of warning area;

(2) Coal or oil fired process steam generating facilities:

(A) maximum reduction by utilization of fuels having the lowest ash and sulfur content,

(B) maximum utilization of mid-day(12-noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing,

(C) reduction of steam load demands consistent with continuing plant operations,

(D) making ready for use of a plan of action to be taken if an emergency develops;

(3) Manufacturing industries of the following classifications: primary metal industries; petroleum refining and related industries; chemical and allied products industries; paper and allied products industries; glass, clay and concrete products industries:

(A) maximum reduction of air contaminants from manufacturing operations by, if necessary, assuming resonable economic hardship by postponing production and allied operations;

(B) maximum reduction by deferring trade waste disposal operations which permit particles, gases, vapors, or malodorous substances;

(C) reduction of heat load demands for processing consistent with continuing plant operations;

(D) maximum utilization of mid-day (12-noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing;

(4) Municipal and commercial refuse disposal operations shall take control action whereby complete elimination of the use of incinerators is created;

(5) Other persons requested by the commission to prepare a preplanned abatement plan shall take all required control actions for this warning level contained in their plan.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.3 (a) (12);
Eff. February 1, 1976;
Amended Eff. December 1, 1976.

.0307 EMISSION REDUCTION PLAN: EMERGENCY LEVEL

(a) General

(1) There shall be no open burning by any person of trade waste, vegetation, refuse, or debris in any form;

(2) The use of incinerators for the disposal of any form of solid or liquid waste shall be prohibited;

(3) All places of employment described below shall immediately cease operations:

(A) mining and quarrying of nonmetallic minerals;

(B) all manufacturing establishments except those required to have in force an air pollution emergency plan;

(C) all construction work involving grading or other operations which generate dust;

(D) all wholesale and retail establishments except pharmacies and stores primarily engaged in the sale of food;

        (E) all commercial and manufacturing establishments, automobile repair services and garages, laundries, barbershops, beauty shops and motion picture theaters;

        (F) elementary and secondary schools, colleges, universities and professional schools;

    (4) The use of motor vehicles is prohibited except in emergencies with the approval of local or state police.

(b) Source Curtailment. Any person responsible for the operation of a source of air contamination shall take all required control actions for this emergency level as they are listed below:

    (1) Coal or oil fired electric power generating facilities:

        (A) maximum reduction by utilization of fuels having lowest available ash and sulfur content,

        (B) maximum utilization of mid-day (12-noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing,

        (C) maximum reduction by diverting electric power generating to facilities outside of emergency area;

    (2) Coal or oil fired process steam generating facilities:

        (A) maximum reduction by reducing heat and steam demands to absolute necessities consistent with preventing equipment damage,

        (B) maximum utilization of mid-day (12-noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing,

        (C) taking the action called for in the abatement plan;

(3) Manufacturing industries of the following classifications: primary metals industries; petroleum refining and related industries; chemical and allied products industries; paper and allied products industries; glass, clay and concrete products industries:

        (A) elimination of air contaminants from manufacturing operations by ceasing, curtailing, postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment;

(B) elimination of air contaminants from trade waste disposal processes which emit solid particles, gases, vapors, or malodorous substances;

(C) maximum reduction of heat load demands for processing;

(D) maximum utilization of mid-day (12-noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing;

(4) Municipal and commercial refuse disposal operations shall take control action whereby complete elimination of the use of incinerators is created;

(5) Other persons requested by the commission to prepare a preplanned abatement plan shall take all required control actions for this emergency level contained in their plan.

History Note: Statutory Authority G.S. 143-215.3(a) (1);
143-215.3 (a) (12);
Eff. February 1, 1976;
Amended Eff. December 1, 1976.

SECTION .0400 - AMBIENT AIR QUALITY STANDARDS

.0401 PURPOSE

It is the purpose of the ambient air quality standards, set out in this Section, to establish certain maximum limits on parameters of air quality considered desirable for the preservation and enhancement of the quality of the state's air resources. Furthermore, it shall be the objective of the commission, consistent with the North Carolina Air Pollution Control Law, to prevent significant deterioration in ambient air quality in any substantial portion of the state where existing air quality is better than the standards. An atmosphere in which these standards are not exceeded should provide for the protection of the public health, plant and animal life, and property.

Ground level concentrations of pollutants will be determined by sampling at fixed locations in areas beyond the premises on which a source is located. The standards are applicable at each such sampling location in the state.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (3);
Eff. February 1, 1976.

.0402 SULFUR OXIDES

(a) The ambient air quality standards for sulfur oxides measured as sulfur dioxide are:

(1) 80 micrograms per cubic meter (0.03 p.p.m.) annual arithmetic mean,

(2) 365 micrograms per cubic meter (0.14 p.p.m) maximum 24-hour concentration not to be exceeded more than once per year,

(3) 1300 micrograms per cubic meter (0.5 p.p.m.) maximum three-hour concentration not to be exceeded more than once per year.

(b) Sampling and analysis shall be in accordance with procedures published on April 30, 1971, in the Federal Register, Volume 36, No. 84.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (3);
Eff. February 1, 1976;
Amended Eff. December 1, 1976.

.0403 SUSPENDED PARTICULATES

(a) The ambient air quality standards for suspended particulate matter are:

(1) 60 micrograms per cubic meter annual geometric mean,

(2) 150 micrograms per cubic meter maximum 24-hour concentration not to be exceeded more than once per year.

(b) Sampling and analysis shall be in accordance with procedures published on April 30, 1971, in the Federal Register, Volume 36, No. 84.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (3);
Eff. February 1, 1976.

.0404 CARBON MONOXIDE

(a) The ambient air quality standards for carbon monoxide are:

(1) 10 milligrams per cubic meter (9 p.p.m.) maximum eight-hour concentration not to be exceeded more than once per year,

(2) 40 milligrams per cubic meter (35 p.p.m.) maximum one-hour

concentration not to be exceeded more than once per year.

(b) Sampling and analysis shall be in accordance with procedures published on April 30, 1971, in the Federal Register, Volume 36, No. 84.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (3);
Eff. February 1, 1976;
Amended Eff. December 1, 1976.

.0405 OZONE

The ambient air quality standard for ozone measured by a reference method based on Appendix D of 40 CFR Part 50 (CFR refers to "Code of Federal Regulations.") and designated in accordance with 40 CFR Part 53 is 0.12 part per million (235 micrograms per cubic meter). The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 part per million (235 micrograms per cubic meter) is equal to or less than 1, as determined by Appendix H of 40 CFR Part 50.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(3);
Eff. February 1, 1976;
Amended Eff. July 1, 1979; December 1, 1976.

.0406 HYDROCARBONS

(a) The ambient air quality standard for hydrocarbons measured and corrected for methane is 160 micrograms per cubic meter (0.24 p.p.m.) maximum three-hour concentration (6:00 a.m. to 9:00 a.m.) not to be exceeded more than once per year. This standard is a guide for use in devising plans to achieve oxidant standards.

(b) Sampling and analysis shall be in accordance with procedures published on April 30, 1971, in the Federal Register, Volume 36, No. 84.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (3);
Eff. February 1, 1976;
Amended Eff. December 1, 1976.

.0407 NITROGEN DIOXIDE

(a) The ambient air quality standard for nitrogen dioxide is 100 micrograms per cubic meter (0.05 p.p.m.) annual arithmetic mean.

(b) Sampling and analysis shall be in accordance with procedures published on April 30, 1971, in the Federal Register, Volume 36, No. 84.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (3);
Eff. February 1, 1976;
Amended Eff. December 1, 1976.

.0408 LEAD

(a) The ambient air quality standard for lead and its compounds measured as elemental lead by a reference method based on Appendix C of 40 CFR Part 50 (CFR refers to "Code of Federal Regulations.") or by an equivalent method, is 1.5 micrograms per cubic metter, maximum arithmetic mean over a calendar quarter.

History note: Statutory Authority G.S. 142-215.3 (a)(1); 143-215.107(a) (3); Eff. April 1, 1980.

SECTION .0500 - EMISSION CONTROL STANDARDS

.0501 COMPLIANCE WITH EMISSION CONTROL STANDARDS

(a) Purpose and Scope. The purpose of this Regulation is to assure orderly compliance with emission control standards found in this Section. This Regulation shall apply to all air contaminant sources, both combustion and non-combustion.

(b) After the effective date of any emission control standard, all sources of air contamination shall register with the Division of Environmental Management in accordance with the provisions of Regulation .0202 of this Subchapter.

(c) In determining compliance with emission control standards, means shall be provided by the owner to allow periodic sampling and measuring of emission rates, including necessary ports, scaffolding and power to operate sampling equipment; and upon the request of the Division of Environmental Management, data on rates of emissions shall be supplied by the owner.

(d) Testing to determine compliance shall be in accordance with the following procedures, except as may be otherwise required in Regulations .0524, .0525, .0603, and .0604 of this Subchapter:

(1) Method 1 of Appendix A of 40 CFR 60 (CFR refers to "Code of Federal Regulations") shall be used to select a suitable site and the appropriate number of test points for the following situations:

(A) particulate testing,

(B) velocity and/or volume flow rate measurements,

(C) testing for acid mist, or other pollutants which occur in liquid droplet form,

(D) any sampling for which velocity and/or volume flow rate measurements are necessary for computing final test results and

(E) any sampling which involves a sampling method which specifies isokinetic sampling. (Isokinetic sampling is sampling in which the velocity of the gas at the point of entry into the sampling nozzle is equal to the velocity adjacent to the nozzle.

Method 1 will be applied as written with the following clarifications: Testing installations with multiple breechings can be accomplished by testing the multiple breechings individually or by testing the discharge stack(s) to which the multiple breechings exhaust. If the multiple breechings are individually tested then Method 1 must be applied to each breeching individually. If test ports are located in a duct that is less than two and one half diameters)or equivalent diameters) in length (between bends or other disturbances) the acceptability of the test location will be subject to the approval or disapproval of the director - Division of Environmental Management or his delegate. For such ducts (less than two and one half diameters in length) the maximum number of test points specified by Method 1 will be used.

(2) Method 2 of Appendix A of 40 CFR 60 will be applied as written and used concurrently with any test method in which velocity and/or volume flow rate measurements are needed for computing final test results.

(3) Sampling procedures for determining compliance with particulate emission control standards shall be in accordance with Method 5 of Appendix A of 40 CFR 60. The minimum time per test point for particulate testing shall be two minutes and the minimum time per test tun will be one hour. The sample gas drawn during each test run must be at least 30 cubic feet. A number of

sources are known to emit organic material (oil, pitch, plasticizers, etc.) which exist as finely divided liquid droplets at ambient conditions. These materials can not be satisfactorily collected by means of the above Method 5. In such cases the commission will reserve the option to require the use of Method 5 as proposed on August 17, 1971, in the Federal Register, Volume 36, Number 159.

(4) The procedures for determining compliance with sulfur dioxide emission control standards for fuel burning sources may be either through determination of sulfur content tnrough fuel analysis or by stack sampling. If a source elects to demonstrate compliance by analysis of sulfur in fuel, sampling, preparation, and analysis of fuels shall be in accordance with the following American Society of Testing and Materials (ASTM) methods:

(A) coal:

(i) sampling - ASTM Method D 2234;
(ii) preparation - ASTM Method D 2013;
(iii) gross calorific value (BTU) - ASTM Method D 2015;
(iv) moisture content - ASTM Method 3173
(v) sulfur content - ASTM Method D 3177;

(B) oil:

(i) sampling - ASTM Method D 270;
(ii) heat of combustion (BTU) - ASTM Method D 240;
(iii) sulfur content - ASTM Method D 129.

The sulfur content and BTU content of the fuel shall be reported on a dry basis. Combustion sources electing to demonstrate compliance through stack sampling shall follow procedures set forth in Method 6 of Appendix A of 40 CFR 60.

(5) Sulfuric acid manufacturing plants and spodumene ore roasting plants will demonstrate compliance with Regulations .0517 and .0527, respectively, of this Section through the use of Method 8 of Appendix A of 40 CFR 60.

(6) All other industrial processes emitting sulfur dioxide shall demonstrate compliance by sampling procedures as set forth in Method 6 of Appendix A of 40 CFR 60.

(7) Sampling procedures to demonstrate compliance with emission Standards for nitrogen oxides shall be in accordance with the procedures set forth in Method 7 in Appendix A of 40 CFR 60.

(8) Each test (excluding fuel samples) shall consist of three repetitions or runs of the applicable test method. For the purpose of determining compliance with an applicable emission standard the average of results of all repetitions shall apply.

(9) In conjunction with performing certain test methods prescribed herein it will be necessary to determine gas composition with respect to carbon dioxide, oxygen, carbon monoxide and nitrogen for the purpose of determining the molecular weight of the gas being sampled. Collecting a sample for this purpose shall be done in accordance with Method 3 of Appendix A of 40 CFR 60:

(A) The grab sample technique may also be used with instruments such as Bacharach Fyrite (trade name) with the following restrictions:

(i) Instruments such as the Bacharach Fyrite (trade name) may only be used for the measurement of carbon dioxide.

(ii) Repeated samples must be taken during the emission test run to account for variations in the carbon dioxide concentration. No less than four samples should be taken during a one-hour test run. but as many as necessary should be taken to produce a reliable average.

(iii) The total concentration of gases other than carbon dioxide, oxygen and nitrogen must be less than one percent.

(B) For fuel burning sources, concentrations of oxygen and nitrogen can be calculated from combustion relations for various fuels.

(10) For those processes for which the allowable emission rate is determined by the production rate, provisions must be made for controlling and measuring the production rate. It will be the responsibility of the source to ensure, within the limits of practicality, that the equipment or process being tested is operated at or near its maximum normal production rate or a lesser rate if specified by the Director, Division of Environmental Management, or his delegate. It will be the reqponsibility of the individual conducting the emission test to include with his test results data which accurately represents the production rate during the test.

(11) Emission rates for wood or fuel burning sources which are expressed in units of pounds per million BTU are to be determined by means of a method described in 40 CFR 60.45. This method, commonly referred to as the "F-factor method", requires the use of carbon dioxide or oxygen measurements, and a higher order of accuracy is necessary in these measurements than might be expected for a

molecular weight determination To provide data of sufficient accuracy to use with the F-factor method a constant-rate, integrated (bag) sample must be taken for the duration of each test run. In the case of a simultaneous testing there should be a separate bag for each sampling train. The bag sample must be analyzed with an orsat analyzer in accordance with Method 3 of Appendix A of 40 CFR 60 (the number of analyses and the tolerance between analyses are specified in Method 3. The specifications indicated in Method 3 for the construction and operation of the bag sampling apparatus must be followed.

(12) Upon prior approval by the Director of his delegate, test procedures different from those set forth herein may be used. Furthermore, the Director or his delegate will have the option to prescribe alternate test procedures on an individual basis when he deems that such action is necessary to secure reliable test data. In the case of sources for which no test method is specified, the Director or his delegate have the authority to prescribe or approve methods on an individual basis.

(e) All existing sources of emission shall comply with applicable regulations and standards at the earliest possible date with all sources being in complinace within three years from the approval of the state's implementation plan by the federal government except as described in Section .0700 of this Subchapter. All new sources shall be in compliance prior to commencing operations.

(f) In addition to any control or manner or operation contamination shall be emission standards in this Section, any source of air contamination shall be the operated with such controls or in such manner that the source shall not cause the ambient air quality standards of Section .0400 of this Subchapter to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than specified in the applicable emission standards in this Section are required to prevent violation of the ambient air quality standards, the permit shall contain a condition requiring such controls.

History note: Statutory Authority G.S. 143-215.3 (a)(1);
143-215.68; 143-215.107 (a)(5);
Eff. February 1, 1976;
Amended Eff. April 1, 1980; March 15, 1978; April 1, 1977.

.0502 Purpose

It is the purpose of the emission control standards set out in Regulations .0503 to .0509 of this Section to establish maximum limits or the rate of emission of air contaminants into the atmosphere. All sources shall be provided with the maximum feasible control.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976.

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.0503 CONTROL OF PARTICULATES FROM FUEL BURNING SOURCES

(a) No person shall cause, suffer, allow, or permit particulate matter caused by the combustion of a fuel to be discharged from any stack or chimney into the atmosphere in excess of the hourly rate set forth in the following table:

*Three year variance for coal fired units of Duke Power Co. and CPPL Co. from particulate emissions limits
See 8/20/80. non-compliance schedule Federal Register publication.

Heat Input In Million BTU/Hour	Maximum Allowable Emission Of Particulate Matter In Lbs./Million BTU
Up to and Including 10	0.60
100	0.33
1,000	0.18
10,000 and Greater	0.10

For a heat input between any two consecutive heat inputs stated in the preceding table, maximum allowable emissions of particulate matter shall be calculated by the equation E = 1.090 times Q to the-0.2594 power where F = maximum allowable emission of particulate matter in lbs./million BTU and 0 = heat input in million BTU/hour.

(b) For the purpose hereof, this Regulation applies to installations in which fuel is burned for the purpose of producing heat or power by indirect heat transfer. Fuels include those such as coal, coke, lignite and fuel oil, but do not include wood or refuse. When any products or by-products of a manufacturing process are burned for the same purpose, or in conjuction with any fuel, the same maximum emissions limitations shall apply.

(c) For the purpose of this Regulation, the heat input shall be the aggregate heat content of all fuel whose products of combustion pass through a stack or stacks. The total heat input of all fuel burning units on a plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976.

.0504 PARTICULATES FROM WOOD BURNING INDIRECT HEAT EXCHANGERS

(a) No person shall cause, suffer, allow, or permit particulate matter caused by the combustion of wood to be discharged into the atmosphere in excess of the hourly rate set forth in the following table:

Heat Input In Million BTU/Hour	Maximum Allowable Emission Of Particulate Matter In Lbs./Million BTU
Up to and Including 10	0.70
100	0.41
1,000	0.25
10,000	0.15

For a heat input between any two consecutive heat inputs stated in the preceding table, maximum allowable emissions of particulate matter shall be calculated by the equation $E = 1.1698$ times Q to the -0.2230 power where E = maximum allowable emission of particulate matter in lbs./million BTU and Q = heat input in million BTU/hour.

(b) For the purpose hereof, this Regulation applies to installations in which wood is burned for the primary purpose of producing heat or power by indirect heat transfer.

(c) For the purpose of this Regulation, the heat content of wood shall be 8,000 BTU per pound (dry-weight basis), and the total heat input of all fuel burning units on a plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976.

.0505 CONTROL OF PARTICULATES FROM REFUSE BURNING EQUIPMENT

No person shall cause, suffer, allow, or permit the emission of particulate matter from refuse burning equipment to be discharged from any stack or chimney into the atmosphere in excess of the hourly rate set forth in the following table:

Refuse Charged Lbs./Hour	Maximum Allowable Emission Of Particulate Matter In Lbs./Hour
0 to 100	0.2
200	0.4
500	1.0
1,000	2.0
2,000 and Above	4.0

For a refuse charge between any two consecutive rates stated in the preceding table, maximum allowable emissions of particulate matter shall be calculated by the equation $E = 0.002\ P$ where F = maximum allowable emission of particulate matter in lbs./hour and P = refuse charged in lbs./hour.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976.

.0506 CONTROL OF PARTICULATES FROM HOT MIX ASPHALT PLANTS

(a) No person shall cause, suffer, allow, or permit particulate matter resulting from the operation of a hot mix asphalt plant to be discharged into the atmosphere in excess of the rates set forth in the following table:

Aggregate Process Rate Tons/Hour	Maximum Allowable Emission Of Particulate Matter In Lbs./Hour
5	10
10	13
15	16
20	18
25	20
50	27
100	37
150	42
200	50
250	52
300 and Above	60

For rates between any two consecutive rates stated in the preceding table, maximum allowable emissions of particulate matter shall be calculated by the equation F = 4.9445 times P to the 0.4376 power where E = maximum allowable emissions of particulate matter in lbs./hour and P = aggregate process rate in tons/hour.

(b) All hot mix asphalt plants shall be equipped with a fugitive dust control system which shall be operated and maintained in such a manner as to reduce to a minimum the emission of particulate matter from any point other than the stack outlet.

(c) The owner or operator of the plant shall maintain dust control of the plant premises and access roads by paving, oil treatment, or other suitable measures.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976.

.0507 PARTICULATES FROM CHEMICAL FERTILIZER MANUFACTURING PLANTS

(a) No person shall cause, suffer, allow, or permit particulate matter caused by the manufacture, mixing, handling, or other operations in the production of chemical fertilizer materials to be discharged from any stack or chimney into the atmosphere in excess of the rates set forth in the following table:

Process Rate In Tons/Hour	Maximum Allowable Emission Of Particulate Matter In Lbs./Hour
10	19
20	23
40	29
50	31
100	38
500	61
1,000	78

For a production rate between any two consecutive rates stated in the preceding table, maximum allowable emissions of particulate matter shall be calculated by the equation E = 9.377 times P to the 0.3067 power where E = maximum allowable emission of particulate matter in lbs./hour and P = process rate in tons/hour.

(b) The process-weight rate for chemical fertilizer manufacturing operations shall be considered as the sum of the production rate and the recycle rate.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976.

.0508 CONTROL OF PARTICULATES FROM PULP AND PAPER MILLS

(a) No person shall cause, suffer, allow, or permit particulate matter resulting from the production of pulp and paper to be discharged from any stack or chimney into the atmosphere in excess of the following:

	Maximum Allowable Emission Of Particulate in Lbs./Equivalent Ton Of Air Dried Pulp
Recovery Furnace Stack	3.0
Dissolving Tank Vent	0.6
Lime Kiln Stack	0.5

(b) No person shall cause, suffer, allow, or permit emissions from any kraft pulp recovery boiler established after July 1, 1971, to exceed an opacity of 35 percent for an aggregate of more than five minutes in any one hour or more than 20 minutes in any 24-hour period. Where the presence of uncombined water vapor or an emission made during a startup made in accordance with procedures approved by the commission is the only reason for failure to meet this opacity limitation, this opacity limitation shall not apply.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(5);
Eff. February 1, 1976.
Amended Eff. May 30, 1978.

.0509 PARTICULATES FROM MICA OR FELDSPAR PROCESSING PLANTS

(a) No person shall cause, suffer, allow, or permit particulate matter caused by the processing of mica of feldspar to be discharged from any stack or chimney into the atmosphere in excess of the rates set forth in the following table:

Actual Process Weight Rate Tons/Hour	Maximum Allowable Rate Of Emission of Particulate Matter In Lbs./Hour
1	4.0
10	19.0
30	40.0
100	50.0
1,000	80.0
3,000	90.0

For process rates between 1 and 30 tons per hour, excluding 10 tons per hour, maximum allowable emissions of particulate matter shall be calculated by the equation E = 4 times P to the 0.677 power where E = maximum allowable rate of emission of particulate matter in lbs./hour and P = actual process weight rate in tons/hour. For process rates between 30 and 1,000 tons per hour, excluding 100 tons per hour, maximum allowable emissions of particulate matter shall be calculated by the equation E = 20.421 times P to the 0.1977 power where F = maximum allowable rate of emission of particulate matter in lbs./hour and P = actual process weight rate in tons/hour. For process rates between 1,000 and 3,000 maximum allowable emissions for particulate matter shall be calculated by the equation E = 38.147 times P to the 0.1072 power where E = maximum allowable rate of emission of particulate matter in lbs./hour and P = actual process weight rate in tons/hour.

(b) The owner or operator of the plant shall maintain dust control of the plant premises and access roads by paving, oil treatment, or other suitable measures.

(c) All stone crushing operations shall employ a water spray over the crusher or other dust control devices as may be approved by the commission.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976.

.0510 PARTICULATES: SAND, GRAVEL, CRUSHED STONE OPERATIONS

(a) No person shall cause, suffer, allow, or permit any material to be produced, handled, transported or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne, and in no case shall established ambient air quality standards be exceeded at the property line.

(b) The owner or operator of the plant shall maintain dust control of the plant premises and access roads by paving, oil treatment, or other suitable measures.

(c) All stone crushing operations shall employ a water spray over the crusher.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976.

.0511 PARTICULATES, SO_2 FROM LIGHTWEIGHT AGGREGATE PROCESSES

(a) No person shall cause, suffer, allow, or permit any material to be produced, handled, transported or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne, and in no case shall established air quality standards be exceeded at the property line.

(b) The owner or operator of the plant shall maintain dust control of the plant premises and access roads by paving, oil treatment, or other suitable measures.

(c) All stone crushing operations shall employ a water spray over the crusher.

(d) All stacks serving kilns or dryers shall be equipped with air pollution control devices capable of collecting a minimum of 95 percent by weight of particulate matter and controlling the emission of sulfur dioxide to not more than 1.6 pounds per million BTU input.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976.

.0512 PARTICULATES FROM WOOD PRODUCTS FINISHING PLANTS

No person shall cause, suffer, allow, or permit particulate matter caused by the working, sanding, or finishing of wood to be discharged from any stack, vent, or building into the atmosphere without providing, as a minimum for its collection, adequate duct work and properly designed collectors, or such other devices as approved by the commission, and in no case shall established ambient air quality standards be exceeded at the property line.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976

.0513 CONTROL OF PARTICULATES FROM PORTLAND CEMENT PLANTS

All cement kilns shall be equipped with gas cleaning devices to reduce the particulate matter in the gas discharged to the atmosphere to not less than 99.7 percent of the particulate matter entering the gas cleaning device. However, particulate matter discharged to the atmosphere shall not exceed 0.327 pounds/barrel.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976

.0514 CONTROL OF PARTICULATES FROM FERROUS JOBBING FOUNDRIES

(a) No person shall cause, suffer, permit, or allow the emission of particulate matter which will exceed the limits specified in the following table from any ferrous jobbing foundry cupola in operation on or prior to January 1, 1972. Any foundry existing on or before January 1, 1972, having a capacity greater than shown in the table in Subdivision (b) of this Regulation, and any new foundry, regardless of size, shall control particulate emissions in accordance with the limits specified in Regulation .0515 of this Section, "Particulates from Miscellaneous Industrial Processes."

(b) The following table is for particulate emissions from ferrous jobbing foundries existing on or before January 1, 1972:

Process Weight (Lbs./Hr.)	Maximum Allowable Emission Rate (Lbs./Hr.)
1,000	3.05
2,000	4.70
3,000	6.35
4,000	8.00
5,000	9.58
6,000	11.30
7,000	12.90
8,000	14.30
9,000	15.50
10,000	16.65
12,000	18.70
16,000	21.60
18,000	23.40
20,000	25.10

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976.

.0515 PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

(a) No person shall cause, suffer, allow, or permit particulate matter caused by industrial processes for which no other emission control standards are applicable to be discharged from any stack, vent, or outlet into the atmosphere in excess of the hourly rate shown in the table in Subdivision (c) of this Regulation.

(b) Process weight per hour means the total weight of all materials introduced into any specific process that may cause any emission of particulate matter. Solid fuels charged are considered as part of the process weight, but liquid and gaseous fuels and combustion air are not. For a cyclical or batch operation, the process weight per hour is derived by dividing the total process weight by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment is idle. For a continuous operation, the process weight per hour is derived by dividing the process weight for a typical period of time by the number of hours in that typical period of time.

(c) The allowable emission rate for particulate matter based on actual process weight rate is listed in the following table:

Process Weight Rate		Allowable Emission Rate for Particulate Matter	Process Weight Rate		Allowable Emission Rate for Particulate Matter
Lb/Hr	Ton/Hr	Lb/Hr	Lb/Hr	Tons/Hr	Lb/Hr
100	0.05	0.551	16,000	8	16.5
200	0.10	0.877	18,000	9	17.9
400	0.20	1.39	20,000	10	19.2
600	0.30	1.83	30,000	15	25.2
800	0.40	2.22	40,000	20	30.5
1,000	0.50	2.58	50,000	25	35.4
1,500	0.75	3.38	60,000	30	40.0
2,000	1.00	4.10	70,000	35	41.3
2,500	1.25	4.76	80,000	40	42.5
3,000	1.50	5.38	90,000	45	43.6
3,500	1.75	5.97	100,000	50	44.6
4,000	2.00	6.52	120,000	60	46.3
5,000	2.50	7.58	140,000	70	47.8
6,000	3.00	8.56	160,000	80	49.1
7,000	3.50	9.49	200,000	100	51.3
8,000	4.00	10.4	1,000,000	500	69.0
9,000	4.50	11.2	2,000,000	1,000	77.6
10,000	5.00	12.1	6,000,000	3,000	92.7
12,000	6.00	13.6			

(d) Calculation of the rate of emission for process weight rates up to 60,000 lb/hr shall be accomplished by use of the equation F=4.10 times P to the power of 0.67 and for process weight rates in excess of 60,000 lb/hr shall be accomplished by use of the equation F + 55.0 times P to the power of 0.11 minus 40 where E = allowable emission rate for particulate matter in lb/hr and P = process weight rate in tons/hr.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976;
Amended Eff. December 1, 1976.

.0516 SULFUR DIOXIDE EMISSIONS FROM FUEL BURNING INSTALLATIONS

No person shall cause, suffer, allow, or permit sulfur dioxide caused by the combustion of a fuel to be discharged from any stack or chimney except in compliance with the following:

(1) No new fuel combustion source constructed after July 1, 1971, shall emit more than 1.6 pounds of sulfur dioxide per million BTU input per hour;
(2) No fuel combustion source existing on July 1, 1971, shall emit more than 2.3 pounds of sulfur dioxide per million BTU input per hour, and in no case shall such rates of emission result in the contravention of ambient air quality standards in the area;
(3) All sources existing on July 1, 1971, shall by July 1, 1980, reduce the emissions of sulfur dioxide to not more than 1.6 pounds per million BTU input per hour unless the source can clearly demonstrate that ambient air quality standards in the area are not and will not likely be contravened.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976.

.0517 EMISSIONS FROM PLANTS PRODUCING SULFURIC ACID

No person shall cause, suffer, allow, or permit the discharge of air contaminants resulting from the manufacture of sulfuric acid into the atmosphere except in compliance with the following:

(1) The emission of sulfur dioxide into the atmosphere must be limited to not more than 27 pounds for each ton of sulfuric acid produced;
(2) The emission of acid mist must be limited to not more than five-tenths of a pound per ton of sulfuric acid produced.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976.

.0518 MISCELLANEOUS VOLATILE ORGANIC COMPOUND EMISSIONS

(a) This Regulation shall be applicable to all volatile organic compound emissions for which no other emission control standards are applicable, including those standards found in Section .0900 of this Subchapter as well as Regulations .0524 and .0525 of this section.
(b) No person shall place, store or hold in any stationary tank, reservoir, or other container of more than 50,000 gallons capacity any liquid compound containing carbon and hydrogen or

containing carbon and hydrogen in combination with any other element which has a vapor pressure of one and five-tenths pounds per square inch absolute or greater under actual storage conditions unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss into the atmosphere, or is designed and equipped with one of the following vapor loss control devices:

(1) a floating pontoon, or double deck type floating roof or internal pan type floating roof equipped with closure seals to enclose any space between the cover's edge and compartment wall; this control equipment shall not be permitted if the compound is a photochemically reactive material having a vapor pressure of 11.0 pounds per square inch absolute or greater under actual storage conditions; all tank gauging or sampling devices shall be gas-tight except when tank gauging or sampling is taking place;

(2) a vapor recovery system or, other equipment or means of air pollution control as may be approved by the commission which reduces the emission of organic materials into the atmosphere by at least 90 percent by weight; all tank gauging or sampling devices shall be gas-tight except when tank gauging or sampling is taking place;

(c) No person shall load in any one day more than 20,000 gallons of any volatile organic compound into any tank-truck, trailer, or railroad tank car from any loading facility unless such loading incorporates the use of submerged loading through boom loaders that extend down into the compartment being loaded or by other methods acceptable to the commission.

(d) No person shall discharge from all sources at any one plant site more than a a total of 40 lbs. of photochemically reactive solvent into the atmosphere in any one day, from any article, machine, equipment or other contrivance used for employing, applying, evaporating or drying any photochemically reactive solvent or substance containing such solvent unless said discharge has been reduced by at least 85 percent by weight. Such photochemically reactive solvents include any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified below, or which exceed any of the following percentage composition limitations, referred to the total volume of the solvent:

(1) a combination of hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones having an olefinic or cyclo-olefinic type of unsaturation except perchloroethylene -- five percent;

(2) a combination of aromatic hydrocarbons with eight or more carbon atoms to the molecule except ethylbezene -- eight percent;

(3) a combination of ethylbenezene, ketones having branched hydrocarbon structure, trichloroethylene, or toluene -- 20 percent.

(d) Whenever any photochemically reactive solvent, or any constituent of any photochemically reactive solvent may be classified from its chemical structure into more than one of the above groups of chemical compounds, it shall be considered as a member of the most reactive chemical group, that is, that group having the least allowable percent of the total volume of solvents.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976.

.0519 CONTROL OF NITROGEN DIOXIDE EMISSIONS

(a) No person shall cause or permit emissions of nitrogen dioxide from an oil or gas-fired boiler with a capacity of 250 million BTU per hour or more in excess of six-tenths of a pound per million BTU of heat input per hour.

(b) No person shall cause or permit emissions of nitrogen dioxide from a coal-fired boiler with a capacity of 250 million BTU or more in excess of one and three-tenths pounds per million BTU of heat input per hour.

(c) No person shall cause or permit the emission of nitrogen dioxide from nitric acid manufacturing plants in excess of five and eight-tenths pounds per ton of acid produced.

(d) No person shall cause or permit the emission of nitrogen dioxide from sulfuric acid manufacturing plants utilizing the chamber process in excess of five and eight-tenths pounds per ton of acid produced.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976.

.0520 CONTROL AND PROHIBITION OF OPEN BURNING

(a) Purpose. This Regulation is for the purpose of preventing, abating, and controlling air pollution resulting from air contaminants released in the open burning of refuse or other combustible materials.

(b) Scope. This Regulation shall apply to all operations involving open burning except those specifically exempted by Subdivision (d) of this Regulation.

(c) No person shall cause, suffer, allow or permit open burning of refuse or other combustible material except those covered by a permit issued under the authority of the commission under Section 143-215.108 of the act or the regulations of a duly certified local air pollution control program having jurisdiction.

(d) Permissible Open Burning. While recognizing that open burning contributes to air pollution, the commission is aware that certain types of open burning may reasonably be allowed in the public interest; therefore, the following types of open burning are permissible as specified if burning is not prohibited by ordinances and regulations of governmental entities having jurisdiction. The authority to conduct open burning under the provisions of this Regulation does not exempt or excuse any person from the consequences, damages or injuries which may result from such conduct, nor does it excuse or exempt any person from complying with all applicable laws, ordinances, regulations and orders of the governmental entities having jurisdiction even though the open burning is conducted in compliance with this Regulation. Permission granted under the authority of the commission under this Regulation shall be subject to continuing review and may be withdrawn at any time:

(1) fires purposely set for the instruction and training of fire-fighting personnel when conducted under the supervision of the North Carolina Insurance Department, North Carolina technical institutes, or the North Carolina community colleges, including the North Carolina Fire College and the North Carolina Rescue College, which are conducted with the cooperation of one or both of these agencies;

(2) fires purposely set for the instruction and training of fire-fighting personnel at permanent fire-fighting training facilities when conducted by a fire department, provided that such fires will not be permitted if the primary purpose in setting the fire is refuse disposal or recovery of salvageable materials. Factors which may be considered in determination of primary purpose include type, amount, and nature of combustible substances;

(3) fires purposely set for the instruction and training of industrial fire-fighting personnel in training programs which are repetitious and continuous in nature if a plan containing program aspects related to possible air pollution including, but not limited to nature and location of the exercise, nature of materials to be burned, amount of each type of material to be burned, training objectives of the exercise, and, insofar as it is known, a schedule of dates and times of the exercises, has been submitted to and has been approved by the Director

of the Division of Environmental Management, provided that such fires will not be permitted if the primary purpose in setting the fire is refuse disposal or recovery of salvageable materials; Factors which may be considered in determination of primary purpose include type, amount and nature of combustible substances. Any deviations from the dates and times of exercises, including additions, postponements, and deletions, submitted in the schedule in the approved plan will be communicated verbally to the appropriate departmental field office at least one hour before the change;

(4) fires purposely set for the instruction and training of public and industrial fire-fighting personnel not covered under Subdivisions (d) (1), (d) (2), or (d) (3) of this Regulation, if the training program aspects related to possible air pollution effects are approved in advance by the air quality section and provided these fire-fighting exercise conditions are met:

(A) The appropriate departmental field office must be initially notified verbally or in writing at least 48 hours in advance of any burning conducted in conjunction with a fire training exercise. If initial notice is given verbally, a written notification must also be submitted within 24 hours of the initial verbal notification. The notification, either written or verbal, must include nature and location of the exercise, date and time exercise is to be held, nature of materials to be burned, amount of each type of material to be burned, and training objectives of the exercise;

(B) The burning of salvageable items, including but not limited to insulated wire and electric motors, will not be exempted as a fire-training exercise, except as provided in Subdivision (C) (iii) of this Paragraph;

(C) The air quality regional engineer for the appropriate departmental field office may withhold approval for burnings purposely set for fire-fighting exercises, other than those described in Subdivisions (d) (1), (d) (2), and (d) (3) of this Regulation, in the following cases:

(i) when the required notice has not been received 48 hours in advance of the proposed burning;

(ii) when the required notice does not include adequate details with respect to the nature and location of the exercise, date and time the exercise is to be held, nature of objects or materials to be burned, amount of each type of material to be burned, and training objectives of the exercise;

(iii) when salvageable items are proposed to be burned in conjunction with the exercise, except that the regional engineer may allow an exercise involving the burning of a motor vehicle if the sole objective is instruction on the techniques of fighting such a fire; The number of motor vehicles burned over a period of time by any one training unit or by several related training units shall be considered in determining the objective of the exercises;

(iv) when the training unit has entered a formal or informal contractual relationship prior to any burning incorporated into a training exercise wherein the unit is compensated for conducting the burning;

(5) fires purposely set by manufacturers of fire extinguishing materials or equipment, testing laboratories, or other persons approved by the Environmental Management Commission, for the purpose of testing or developing such materials or equipment in accordance with a valid standard qualification program;

(6) fires purposely set to agricultural lands for disease and pest control and other accepted agricultural or wildlife management practices acceptable to the North Carolina Environmental Management Commission;

(7) fires purposely set to forest lands for forest management practices acceptable to the division of forestry and the North Carolina Environmental Management Commission;

(8) fires purposely set in rural areas for rights-of-way maintenance only in instances where there are no other practicable or feasible methods of disposal and under conditions acceptable to the North Carolina Environmental Management Commission;

(9) camp fires and fires used solely for outdoor cooking and other recreational purposes, or for ceremonial occasions, or for human warmth and comfort;

(10) open burning of leaves, tree branches or yard trimmings originating on the premises of private residences and burned on those premises in areas where no public pickup facilities are available, and such burning is done between 8:00 a.m. and 6:00 p.m. and does not create a nuisance;

(11) open burning for land clearing or right-of-way maintenance in areas other than those zoned solely residential or used primarily for residential purposes, provided the following conditions are met:

(A) Prevailing winds at the time of burning must be away from any city or town or built-up area, the ambient air of which may be significantly affected by smoke, fly-ash, or other air contaminants from the burning;

(B) The location of the burning must be at least 1,000 feet from any dwelling located in a predominantly residential area other than a dwelling structure located on the property on which the burning is conducted;

(C) The amount of dirt or the material being burned must be minimized;

(D) Heavy oils, asphaltic materials, items containing natural or synthetic rubber, or any materials other than plant growth may not be burned;

(E) Initial burning may generally be commenced only between the hours of 9:00 a.m. and 3:00 p.m., and no combustible material may be added to the fire between 3:00 p.m. on one day and 9:00 a.m. on the following day, except that, under favorable meteorological conditions, deviation from the above stated hours of burning may be granted by the air pollution control agency having jurisdiction. It shall be the responsibility of the owner or operator of the open burning operation to obtain written approval for burning during periods other than those specified above;

(12) fires for the disposal of dangerous materials where there is no alternative method of disposal, and burning is conducted in accordance with procedures acceptable to the Environmental Management Commission.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976;
Amended Eff. December 1, 1976.

.0521 CONTROL OF VISIBLE EMISSIONS

(a) Purpose. The intent of this Regulation is to promulgate rules pertaining to the prevention, abatement, and control of emissions generated as a result of fuel burning operations and other industrial processes where an emission can be reasonably expected to occur, except during startups made in accordance with procedures approved by the commission.

(b) Scope. This Regulation shall apply to all fuel burning installations and such other processes as may cause a visible emission incident to the conduct of their operations, provided that sources subject to an emission standard for this pollutant in Regulation .0524 or .0525 of this Section shall meet that standard.

(c) Installations Existing as of July 1, 1971. No person shall cause, suffer, allow, or permit emissions from any installation which are:

(1) of a shade or density darker than that designated as No. 2 on the Ringelmann Chart for an aggregate of more than five (5) minutes in any one (1) hour or more than 20 minutes in any 24-hour period or;

(2) of greater than 40 percent opacity for an aggregate of more than five (5) minutes in any one (1) hour or more than 20 minutes in any 24-hour period.

(d) Installations Established after July 1, 1971. No person shall cause, suffer, allow, or permit emissions from any installation which are:

(1) of a shade or density darker than that designated as No. 1 on the Ringelmann Chart for an aggregate of more than five (5) minutes in any one (1) hour or more than 20 minutes in any 24-hour period or;

(2) of greater than 20 percent opacity for an aggregate of more than five (5) minutes in any one (1) hour or more than 20 minutes in any 24-hour period.

(e) Where the presence of uncombined water is the only reason for failure of an emission to meet the limitations of Subdivision (c) or Subdivision (d) of this Regulation those requirements shall not apply.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(5);
Eff.

.0522 CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

(a) Purpose. The purpose of this Regulation is to provide for the control and prohibition of odorous emissions.

(b) Scope. This Regulation shall apply to all operations that produce odorous emissions.

(c) No person shall cause, suffer, allow, or permit any plant engaged in the processing of animal, mineral, or vegetable matter to be operated without employing suitable measures for the control of odorous emissions including wet scrubbers, incinerators, or such other devices as may be approved by the commission.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. February 1, 1976

.0523 CONTROL OF CONICAL INCINERATORS

(a) Purpose. The purpose of this Regulation is to set forth the requirements of the commission relating to the use of conical incinerators in the burning of wood and agricultural waste.

(b) Scope. This Regulation shall apply to all conical incinerators which are designed to incinerate wood and agricultural waste.

(c) No person shall cause, suffer, allow, or permit the burning of wood or agricultural waste in a conical incinerator without taking reasonable precaution to prevent air pollutants from becoming airborne. Such reasonable precautions shall include, but not be limited to, the following. Each conical incinerator subject to this part shall be equipped and maintained with:

(1) an underfire and an overfire forced air system and variable damper which shall be automatically controlled to ensure the optimum temperature range for the complete combustion of the amount and type of material waste being charged into the incinerator;

(2) a temperature recorder for continuously recording the temperature of the exit gas;

(3) a feed system capable of delivering the waste to be burned at a sufficiently uniform rate to prevent temperature from dropping below 800 degrees Fahrenheit during normal operation, with the exception of one startup and one shutdown per day.

(d) The Owner of the conical incinerator shall monitor and report ambient particulate concentrations in accordance with a method and schedule acceptable to the commission.

(e) In no case shall the ambient air quality standards as defined in Section .0400 of this Subchapter be exceeded.

(f) The conical incinerator shall be operated in such a manner as to prevent visible emissions from exceeding that shade or density allowed by Regulation .0521 of this Section.

(g) The distance a conical incinerator is located and/or operated from the nearest structure(s) in which people reside or work shall be optimized to prevent air quality impact and shall be subject to approval by the commission.

(h) New conical incinerators shall be in compliance with this Regulation on startup. Existing conical incinerators shall meet with the following schedule:

  (1) Reports and plans shall be submitted on or before July 1, 1974;

  (2) Purchase contracts shall be let on or before October 1, 1974;

  (3) Construction shall be begun on or before December 31, 1974;

  (4) Facilities shall be completed and placed in operation on or before June 1, 1975.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215/107 (a) (5);
Eff. February 1, 1976.

.0524 NEW SOURCE PERFORMANCE STANDARDS

(a) Sources of the following types when subject to new source performance standards promulgated in 40 CFR 60 (CFR refers to "Code of Federal Regulations") shall comply with the emission standards, monitoring and reporting requirements, maintenance requirements, notification and record keeping requirements, performance test requirements, test method and procedure provisions, and any other provisions, as required therein, rather than with any otherwise-applicable regulation in this Section or Section .0900 of this subchapter which would be in conflict therewith:

  (1) fossil fuel-fired steam generators (40 CFR 60.1 to 60.49);

  (2) incinerators (40 CFR 60.1 to 60.39 and 60.50 to 60.59);

  (3) portland cement plants (40 CFR 60.1 to 60.39 and 60.60 to 60.69);

  (4) nitric acid plants (40 CFR 60.1 to 60.39 and 60.70 to 60.79);

  (5) sulfuric acid plants (40 CFR 60.1 to 60.39 and 60.80 to 60.89);

  (6) asphalt concrete plants (40 CFR 60.1 to 60.39 and 60.90 to 60.99);

(7) petroleum refineries (40 CFR 60.1 to 60.39 and 60.100 to 60.109);

(8) storage vessels for petroleum liquids (40 CFR 60.1 to 60.39 and 60.110 to 60.119);

(9) secondary lead smelters (40 CFR 60.1 to 60.39 and 60.120 to 60.129);

(10) secondary brass and bronze ingot production plants (40 CFR 60.1 to 60.39 and 60.130 to 60.139);

(11) iron and steel plants (40 CFR 60.1 to 60.39 and 60.140 to 60.149);

(12) sewage treatment plants (40 CFR 60.1 to 60.39 and 60.150 to 60.159);

(13) phosphate fertilizer industry: wet process phosphoric acid plants (40 CFR 60.1 to 60.39 and 60.200 to 60.209);

(14) phosphate fertilizer industry: superphosphoric acid plants (40 CFR 60.1 to 60.39 and 60.210 to 60.219);

(15) phosphate fertilizer industry: diammonium phosphate plants (40 CFR 60.1 to 60.39 and 60.220 to 60.229);

(16) phosphate fertilizer industry: triple superphosphate plants (40 CFR 60.1 to 60.39 and 60.230 to 60.239);

(17) phosphate fertilizer industry: granular triple superphosphate storage facilities (40 CFR 60.1 to 60.39 and 60.240 to 60.249);

(18) steel industry: electric arc furnaces (40 CFR 60.1 to 60.39 and 60.270 to 60.279);

(19) coal preparation plants (40 CFR 60.1 to 60.39 and 60.250 to 60.259);

(20) primary copper smelters (40 CFR 60.1 to 60.39 and 60.160 to 60.169);

(21) primary zinc smelters (40 CFR 60.1 to 60.39 and 60.170 to 60.179);

(22) primary lead smelters (40 CFR 60.1 to 60.39 and 60.180 to 60.189);

(23) primary aluminum reduction plants (40 CFR 60.1 to 60.39 and 60.190 to 60.199).

(24) ferroalloy production facilities (40 CFR 60.1 to 60.39 and 60.260 to 60.269);

(25) kraft pulp mills (40 CFR 60.1 to 60.39 and 60.280 to 60.289);

(26) grain elevators (40 CFR 60.1 to 60.39 and 60.300 to 60.309);

(27) lime manufacturing plants (40 CFR 60.1 to 60.39 and 60.340 to 60.349).

(b) All requests, reports, applications, submittals, and other communications to the administrator required under Subdivision (a) of this Regulation shall be submitted to the Environmental Management Commission rather than to the Environmental Protection Agency.

(c) In the application of this Regulation, definitions contained in 40 CFR 60 shall apply rather than those of Section .0100 of this Subchapter when conflict exists.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.68; 143-215.107(a)(5);
Eff. June 18, 1976.
Amended Eff. April 1, 1980.

.0525 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

(a) Sources emitting pollutants of the following types when subject to national emission standards for hazardous air pollutants promulgated in 40 CFR 61 (CFR refers to "Code of Federal Regulations") shall comply with emission standards, monitoring and reporting requirements, notification and record keeping requirements, performance test requirements, test method and procedure provisions, and any other provisions, as required therein, rather than with any otherwise applicable regulation in this Section or Section .0900 of this subchapter which would be in conflict therewith:

(1) asbestos (40 CFR 61.01 to 61.29),

(2) beryllium (40 CFR 61.01 to 61.19 and 61.30 to 61.39),

(3) beryllium from rocket motor firing (40 CFR 61.01 to 61.19 and 61.40 to 61.49),

(4) mercury (40 CFR 61.01 to 61.19 and 61.50 to 61.59).

(5) vinyl chloride (40 CFR 61.01 to 61.19 and 61.60 to 61.71)

(b) All requests, reports, applications, submittals, and other communications to the administrator required under Subdivision (a) of this Regulation shall be submitted to the Environmental Management Commission rather than to the Environmental Protection Agency.

(c) In the application of this Regulation, definitions contained in 40 CFR 61 shall apply rather than those of Section .0100 of this Subchapter when conflict exists.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.107 (a) (5);
Eff. June 18, 1976.
Amended Eff. April 1, 1980

.0527 EMISSIONS FROM SPODUMENE ORE ROASTING

No person shall cause, suffer, allow, or permit the discharge of air contaminants resulting from the roasting of spodumene ore into the atmosphere from any one kiln except in compliance with the following:

(1) The emission of sulfur dioxide into the atmosphere shall not exceed 9.7 pounds for each ton of ore roasted.

*(2) The emission of sulfur acid mist, expressed as H(2)SO(4), shall not exceed 1.0 pound per ton of ore roasted.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.07(a)(5);
Eff. March 15, 1978.

SECTION .0600 - AIR CONTAMINANTS; MONITORING, REPORTING

.0601 PURPOSE AND SCOPE

(a) The purpose of this Section is to set forth the requirements of the commission relating to monitoring air contaminant emissions and filing reports covering their discharge into the outdoor atmosphere of the state.

(b) This Section shall apply to all persons subject to the provisions of Section .0600 of Subchapter 2H of this Title.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.68;
Eff. February 1, 1976;
Amended Eff. June 18, 1976.

.0602 DEFINITIONS

The following definitions of terms apply throughout this Section with the exception of Regulation .0603 in which the definitions contained in 40 CFR 60 shall apply:

(1) "CFR" means the "Code of Federal Regulations."

(2) "Fossil fuel-fired steam generator" means a furnace or boiler used in the process of burning fossil fuel for the primary purpose of producing steam by heat transfer.

(3) "Capacity factor" means the ratio of the average load on a machine or equipment for the period of time considered to the capacity rating of the machine or equipment.

(4) "Excess emissions" means emissions of an air pollutant in excess of an emission standard.

(5) "Emission standard" means a regulation (or portion thereof) setting forth an allowable rate of emissions, level of opacity, or prescribing equipment or fuel specifications that result in control of air pollution emissions.

(6) "Sulfuric acid plant" means any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, or acid sludge, but does not include facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.

(7) "Nitric acid plant" means any facility producing nitric acid 30 to 70 percent in strength by either the pressure or atmospheric pressure process.

(8) "Distillate oils" are those liquid fractions of petroleum which are normally derived by vaporization and condensation of petroleum remaining after gasoline and fractions more volatile than gasoline have been removed.

(9) "Residual oils" are those liquid or semi-liquid fractions of petroleum remaining after distillate oils and fractions more volatile than distillate oils have been removed.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.68;
Eff. February 1, 1976;
Amended Eff. June 18, 1976.

.0603 SOURCES COVERED BY NATIONAL STANDARDS

(a) Sources of the following types when subject to new source performance standards promulgated in 40 CFR 60 shall be monitored as required therein, and the excess emissions shall be reported as specified therein quarterly to the commission:

(1) fossil fuel-fired steam generators (40 CFR 60.1 to 60.49),

(2) nitric acid plants (40 CFR 60.1 to 60.39 and 60.70 to 60.79),

(3) sulfuric acid plants (40 CFR 60.1 to 60.39 and 60.80 to 60.89),

(4) petroleum refineries (40 CFR 60.1 to 60.39 and 60.100 to 60.109),

(5) primary copper smelters (40 CFR 60.1 to 60.39 and 60.160 to 60.169),

(6) primary zinc smelters (40 CFR 60.1 to 60.39 and 60.170 to 60.179),

(7) primary lead smelters (40 CFR 60.1 to 60.39 and 60.180 to 60.189).

(8) ferroalloy production facilities (40 CFR 60.1 to 60.39 and 60.260 to 60.269),

(9) steel plants: electric arc furnaces (40 CFR 60.1 to 60.39 and 60.270 to 60.279),

(10) kraft pulp mills (40 CFR 60.1 to 60.39 and 60.280 to 60.289),

(11) lime manufacturing plants (40 CFR 60.1 to 60.39 and 60.340 to 60.349).

(b) Sources of the following types when subject to national emission standards for hazardous air pollutants promulgated in 40 CFR 61 shall be monitored as required therein, and the data shall be reported as specified therein semiannually to the commission: vinyl chloride, (40 CFR 61.01 to 61.19 and 61.60 to 61.71).

HISTORY NOTE: Statutory Authority G.S. 143-215.3(a)(1);
143-215.68;
Eff. February 1, 1976;
Amended Eff. April 1, 1980; June 18, 1976.

.0604 SOURCES COVERED BY IMPLEMENTATION PLAN REQUIREMENTS

(a) Sources of the following types when included in Subdivision 1.1 of Appendix P of 40 CFR 51 concerning the preparation, adoption, and submittal of implementation plans but not including those sources covered by Regulation .0603 of this Section shall be monitored as described in Subdivision 2 and Subdivision 3, Paragraphs 3.1.1 to 3.1.5, where the performance specifications are those found in Appendix B of 40 CFR 60, and Paragraphs 3.2 to 3.8, of Appendix P of 40 CFR 51; and the excess emissions shall be reported quarterly to the commission in the manner described in Subdivision 4 and Subdivision 5, Paragraphs 5.1 to 5.3.3, of Appendix P of 40 CFR 51 except as otherwise provided in this Section:

(1) fossil fuel-fired steam generators,

(2) nitric acid plants,

(3) sulfuric acid plants,

(4) petroleum refineries.

The minimum requirements described in the referenced portions of Appendix P of 40 CFR 51 are hereby adopted as the requirements to be used under this Regulation. Wherever the language of the referenced portion of Appendix P of 40 CFR 51 speaks of the "state" or "state plan," the requirements described therein shall apply to those sources to which they pertain.

(b) A source which has purchased an emission monitoring system prior to September 11, 1974, is exempt from having to meet the test procedures described in 40 CFR 60 Appendix B for a period of five years following the approval by the Environmental Protection Agency of this Regulation as a part of the North Carolina State Implementation Plan, provided that such system was approved under the then regulation number 8 which was recodified as Section .0600 of Subchapter 2D of Title 15 of the North Carolina Administrative Code, effective February 1, 1976. A monitoring scheme which uses significant manual operations, for example, a periodic grab sampling and analysis scheme, is not considered to be an emission monitoring system as described in this Subdivision.

(c) When effluents from two or more affected facilities of similar design and operating characteristics are combined before being released to the atmosphere, the monitoring system may be installed on the combined effluent.

(d) A six-minute time period shall be deemed appropriate as an alternative opacity averaging time period as described in Subdivision 4.2 of Appendix P of 40 CFR 51.

(e) Data reporting or reduction procedures varying from those prescribed by this Regulation may be used if the owner or operator of a source shows to the satisfaction of the Director, Division of Environmental Management, that the alternate procedures are at least as accurate as those in the Regulation.

(f) Alternative monitoring and reporting requirements may be approved, on a case-by-case basis, by the Director, Division of Environmental Management, through the following procedure:

(1) The owner or operator of a source may apply in writing to the director for approval of alternative monitoring and reporting requirements. The application shall include:

(A) the basis or reason that alternative monitoring and reporting requirements are more desirable than those prescribed by this Regulation,

(B) a proposal of alternative monitoring and reporting requirements,

(C) any other information that the source owner or operator feels would be helpful to the director in his evaluation of the application.

(2) Examples of situations where alternative monitoring and reporting requirements may be approved include, but are not limited to, the following:

(A) when installation of a continuous monitoring system or device prescribed by this Regulation would not provide accurate determinations of emissions;

(B) when the affected facility is operated on less than 30 days per year;

(C) when effluents from two or more facilities of significantly different design and operating characteristics are combined before release to the atmosphere or when the effluent is released to the atomosphere through more than one point;

(D) when the director determines that the requirements prescribed by this Regulation would impose an extreme economic burden on the source owner or operator; The determination of an extreme economic burden shall be made on the basis of whether meeting the requirements prescribed by this Regulation would produce serious hardship without equal or greater benefit to the public;

(E) when the monitoring systems prescribed by this Regulation cannot be installed due to physical limitations at the facility; The determination of such limitations shall be made on the basis of whether meeting the requirements prescribed by this Regulation would necessitate significant reconstruction of the facility.

(3) The director may require the submission of additional information as he deems appropriate to evaluate the application.

(4) Upon making a determination that the source should be subject to alternative monitoring and reporting requirements, the director may approve either the proposed alternative monitoring and reporting requirements or any other monitoring and reporting requirements that he deems appropriate and feasible.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.68;
Eff. February 1, 1976;
Amended Eff. June 18, 1976.

.0605 WOOD AND WOOD FOSSIL FUEL COMBINATION UNITS

(a) There shall be installed, calibrated, maintained, and operated a photoelectric or other type visible emissions detector and recorder on any stack discharging the flue gases from one or more steam generator units when the heat input from wood fuels (or when the sum of the heat inputs from wood fuels and liquid or solid fossil fuels for generators not covered by Regulation .0603 or .0604 of this Section) to any individual steam generator unit discharging to said stack exceeds 250 million BTU per hour and the annual average capacity factor is greater than 30 percent as demonstrated to the state by the owner or operator.

(b) The visible emissions detector instrumentation shall be subject to the manufacturer's recommended zero adjustment and calibration procedures.

(c) The record of such measurements shall be summarized showing the date and duration of any violations of the requirements of applicable visible emission regulations and submitted to the Environmental Management Commission at quarterly intervals. The recorder charts from which the summary is prepared shall be retained for at least one year and made available for inspection by personnel of the division of environmental management.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.68;
Eff. February 1, 1976;
Amended Eff. June 18, 1976.

.0606 OTHER COAL OR RESIDUAL OIL BURNERS

(a) Provisions shall be made for determining sulfur dioxide emissions into the ambient air by all sources which burn coal or residual oil and which are not required to monitor for sulfur dioxide emissions by Regulation .0603 or .0604 of this Section when the sum of the heat inputs from coal and residual oil to any individual unit exceeds 250 million BTU per hour and the unit has an annual average capacity factor of greater than 30 percent, as reported to the Federal Power Commission for calendar year 1974, or as otherwise demonstrated to the state by the owner or operator.

(b) Such determinations may be made by an instrument for continuously monitoring and recording sulfur dioxide emissions or in the case of fuel burning installations by analyses of representative samples of fuels to determine BTU value and percent sulfur content or by such content or by such other procedures as may be approved by the Director, Division of Environmental Management, or his delegate.

(c) The continuous monitoring of sulfur dioxide emissions and the determination of the sulfur content of fuels shall be conducted in accordance with procedures approved by the Director, Division of Environmental Management, or his delegate.

(d) The data to be reported quarterly to the commission shall include:

(1) in the case of fuel analysis, the quantity and type of fuels burned, the BTU value, the sulfur content in percent by weight, and the total calculated sulfur dioxide emissions in those cases where these emissions are excess emissions;

(2) in the case of continuous monitoring of emissions, the emission rate expressed in the same units as the applicable standard, the maximum instantaneous rate, and the total sulfur dioxide emissions in those cases where these emissions are excess emissions. Recorder charts from continuous monitoring instruments shall be retained for at least one year and made available for inspection by personnel of the divison of environmental management.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.68;
Eff. February 1, 1976;
Amended Eff. December 1, 1976; June 18, 1976.

.0607 EXCEPTIONS TO MONITORING AND REPORTING REQUIREMENTS

(a) The following exceptions apply to Regulations .0604 to .0606 of this Section:

(1) A source not subject to an emission standard of Section .0500 of this Subchapter shall not be required to be monitored or reported under this Section.

(2) A source scheduled for retirement by October 6, 1980, shall not be required to be monitored or reported under this Section, provided that adequate evidence and guarantees are provided that clearly show that the source will cease operations prior to such date.

(3) Monitoring and reporting during a period of monitoring system malfunction shall not be required under this Section, provided that the source owner or operator shows, to the satisfaction of the Director, Division of Environmental Management, that the malfunction was unavoidable and is being repaired as expeditiously as practicable.

(4) Proof of continuous monitoring system performance shall be provided on request of the Director, Divison of Environmental Management, when system repairs or adjustments have been made.

(b) Sources otherwise required to be monitored and reported under Regulation .0605 or .0606 of this Section shall not be required to be monitored or reported under this Section if the source is operated on less than 30 days per year.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.68;
Eff. February 1, 1976;
Amended Eff. June 18, 1976.

.0608 PROGRAM SCHEDULE

(a) All persons required to report emissions by Regulations .0603, .0604, .0605 or .0606 of this Section shall have in operation a monitoring program for each affected source on and after the day 18 months following approval by the Environmental Protection Agency of this Regulation as a part of the North Carolina State Implementation Program except that reasonable extensions of this period may be granted as described in 40 CFR 51.19 (e) (5) and Subdivision 1.3 of Appendix P of 40 CFR 51.

(b) All persons required to report emissions by Regulation .0605 or .0606 of this Section shall, by October 16, 1976, (November 1, 1973, for affected facilities which were required to be monitored under the then regulation number 8 which was recodified as Section .0600 of Subchapter 2D of Title 15 of the North Carolina Administrative Code, effective February 1, 1976) submit to the division of environmental management for review and approval a program for complying with such requirements. Such a program shall include a statement concerning the qualifications of the personnel who will be doing the sampling and sample analysis, the date by which the first report will be submitted, and a description of the procedures and equipment for sampling and sample analysis.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.68;
Eff. June 18, 1976.

.0609 MONITORING CONDITION IN PERMIT

Reference to the obligations of the approved monitoring program shall be included as a condition of the permit issued for the source. In the case of permits outstanding, this reference shall be included upon renewal of the permit.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.68;
Eff. June 18, 1976.

.0610 DELEGATION

The director is authorized to exercise all functions necessary to administer this Regulation and to delegate any or all such functions, except that he shall not delegate below the level of regional engineers, division of environmental management.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.3 (a) (4);
Eff. June 18, 1976

SECTION .0700 - POST ATTAINMENT POLICY †

.0701 APPLICABILITY

North Carolina's federally approved air quality implementation plan prescribes that sources be in compliance with national secondary standards by May 31, 1975. This policy states enforcement procedures to be taken against point sources and area sources which will not be in compliance with applicable emission standards and compliance schedules by June 1, 1975. No formal enforcement action will be taken against those sources which will be in compliance by August 31, 1975.

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† Not EPA-approved by July 1, 1979.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.110;
Eff. February 1, 1976.

.0702 DEFINITIONS

The following definitions of terms apply throughout this Section:

(1) "Point sources" mean those sources capable of emitting more than 100 tons per year of any pollutant should there be no control employed.

(2) "Good faith effort" means that positive action taken by a company that is specifically intended to lead to achievement of compliance with applicable air quality standards. Verbal intent alone to do something cannot be considered a good faith effort. Positive actions include awarding of contracts, submittal of permit application, ordering equipment, installation of equipment, and documented futile attempts to obtain "clean fuel" where control has not, in the past, been practical.

(3) "Area sources" mean all sources other than point sources.

(4) "Significant public interest" means comments from the public containing evidence which show that the public health may be endangered by the proposed extension or that compliance can be achieved in a shorter period of time than that proposed.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.110;
Eff. February 1, 1976.

.0703 SOURCE CATEGORIES

Point sources and area sources will each be divided into four categories as follows:

(1) Category A includes sources which have shown good faith, but due to the following types of reasons will be unable to meet their present compliance schedules:

(A) delays in construction time, due to the inability to obtain certain construction materials (example -- steel);

(B) inability to obtain firm contracts for low sulfur fuels;

(C) delays in equipment delivery;

(D) operational problems associated with new control equipment;

(E) sources that have established compliance through utilizing by-product markets, but are required to change control strategies, due to loss of by-product market;

(F) equipment installation delays beyond the control of the source.

(2) Category B includes sources which have shown good faith, but due to the following types of reasons will be unable to meet their compliance schedules:

(A) sources that have not established controls, due to technological indecision;

(B) sources that have been identified and located by the division of environmental management in the latter part of the compliance period, thus making it impossible to meet the schedule for compliance;

(C) contracts for control equipment were not made in time to allow completion of schedule.

(3) Category C includes sources which have made little or no effort to comply with air quality emission standards, compliance schedules, permit conditions, or failed to obtain or renew a permit. Placing a source within this category will be based primarily on the recommendations of the field engineers.

(4) Category D includes sources, including those in any of the above categories, which if granted a compliance extension could possibly either singularly or in combination with other sources result in contravention of any national primary ambient air quality standard.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.110;
Eff. February 1, 1976.

.0704 ENFORCEMENT PROCEDURES

(a) General. Enforcement procedures will consist of a least one of the following:

(1) special order by consent,

(2) special order,

(3) special order and assessment of a civil penalty,

(4) criminal action or injunctive relief.

(b) Enforcement Procedures Against Sources Which Fall in Categories A and B, as Defined in Regulation .0703 of this Section. An attempt will be made to negotiate special orders by consent pursuant to G.S. 143-215.110 for sources which fall in categories A and B:

(1) Procedure for issuing special orders by consent:

(A) Notify source by letter of the impending deadline, probable violation, and desire to resolve matter by issuance of a special order by consent;

(B) Negotiate with source (this would include compliance schedules, and such special conditions as needed and filing of documentation by source);

(C) Submit proposed order to EPA for approval (point sources for sulfur dioxide and TSP only);

(D) Publish notice of proposed special orders extending date for compliance; One public notice may be used to cover several proposed special orders;

(E) Orders will be submitted to the Environmental Management Commission for approval and execution:

(F) In case of school systems, one order may be issued to cover a group of schools in a given county, if the facts are the same for each.

(2) Procedure for Issuing Special Orders. If a source in categories A or B refuses to enter into a special order by consent, then a special order pursuant to an adjudicatory hearing will be issued. The procedure is the same as for special order by consent except for addition of the following:

(A) request EPA to issue section 114 letter;

(B) request the Director, DEM, to designate a hearing officer to conduct adjudicatory hearings;

(C) issue public notice of hearing which includes proposed special order and evidence substantiating noncompliance; if party accepts special order without hearing, it is then a special order by consent;

(D) hearing officer holds hearing, and depending upon findings may issue special order.

(c) Enforcement Procedures Against Sources in Category C, as defined in Regulation .0703 of this Section. Enforcement procedures against sources in Category C will be a special order by consent or a special order and assessment of civil penalty by the director. The procedure would be exactly the same as that described in Subdivision (b) of this Regulation, except that the penalty would be assessed at the time the special order by consent or the special order is issued. Criminal action and injunctive relief will be reserved for use against those sources which either violate special orders and/or have shown no cooperation with complying with air quality standards from the time the program was first initiated until June 1, 1975. Action against those sources will be filed as soon as possible after June 1, 1975.

(d) Enforcement Procedures Against Sources in Category D, as Defined in Regulation .0703 of this Section. No compliance extension will be approved unless the source meets the requirements of Section 110 (f) of the Clean Air Act Amendments. If the source satisfies the section 110 requirements, enforcement will proceed under any of the four procedures in Subdivision (a) of this Section.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.110;
Eff. February 1, 1976;
Amended Eff. December 1, 1976.

.0705 DOCUMENTATION FOR SPECIAL ORDERS

Documentation procedures shall consist of the following:

(1) Establish five increments of progress for the attainment of control strategies;

(2) Contract date made by July 1, 1975, for the installation of control equipment;

(3) In cases where delays have occurred, due to non-availability of control equipment, obtain documentation from supplier;

(4) In cases where lack of clean fuel is the case of non-

compliance, show documented proof by at least two fuel suppliers that clean fuel is not available;

(5) Evidence that emissions levels will be maintained at, or below present levels, pending completion of control installations;

(6) Furnish report on all increments of progress;

(7) Conference with state and EPA concerning adequate schedule to complete the attainment of control concerning each source;

(8) Source is to proceed as expeditiously as possible toward obtaining compliance, with dates not to exceed July 1, 1977, unless a longer schedule is necessary, due to the magnitude of control strategy.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.110;
Eff. February 1, 1976.

.0706 PUBLIC PARTICIPATION

(a) Notice of Intent to Issue Special Orders by Consent

(1) Notice of intent to issue special orders by consent (SOC) shall be published at least once in the five largest-circulation newspapers of the state at least 45 days prior to submittal of the SOCs to the Environmental Management Commission for approval. The notice shall provide for 30-day period in which public comment may be submitted to the air quality section. Notices shall contain the following minimum information: name of source (s), location (city and/or county), and final compliance date.

(2) At the close of the 30-day comment period, the air quality and enforcement sections will review any comments received to determine if significant public interest exists to warrant a public hearing. However, the determination need not wait until close of the 30-day period if a substantial number of public comments are received early in the comment period.

(3) Notices may be issued for more than one source, but will be listed in the notice alphabetically by counties.

(b) Public Hearings.

(1) On Proposed Special Orders by Consent

(A) If significant public interest is expressed in the proposed issuance of special order by consent, the director shall be requested to convene a hearing utilizing the same procedures as spelled out in Regulation .0402 of Subchapter 2I, Title 15, NCAC, and to designate the hearing officer (s).

(B) Notice of the hearing shall be given 20 days in advance of the hearing to all persons who submitted comments on the proposed order, and shall be published and contain the minimum information listed in Subdivision (a) (1) of this Regulation.

(2) On Proposed Special Orders. An administrative hearing must be held in accordance with Section .0300, Subchapter 2I, Title 15, prior to the issuance of every special order.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.110;
Eff. February 1, 1976;
Amended Eff. December 1, 1976.

.0707 EXTENSIONS

(a) The commission reiterates its intent that all special orders and special orders by consent issued under this Section be enforced by the Director, Division of Environmental Management, pursuant to enforcement procedures contained in G.S. 143-215.114 and 15 NCAC 2J. Accordingly, extensions are extraordinary procedures available to sources solely in the discretion of the Environmental Management Commission.

(b) Requests by sources for extensions shall be submitted to the Director, Division of Environmental Management. Such requests must be in writing and include, at the least, the following information:

(1) length of extension requested, and

(2) reasons for requesting extension.

(c) The Director, Division of Environmental Management, shall refer the requests to the commission only when he finds:

(1) The source has demonstrated that the inability of the source to comply with its special order or special order by consent is due to extenuating circumstances clearly beyond the control of the source which could not have been prevented by the source had reasonable foresight been exercised;

(2) Cost to the source was not the cause of the inability of the source to comply; and

(3) The request was submitted at least 30 days prior to any interim date that would cause the final date not to be met or at least 45 days prior to any final date.

(d) When any extension request is granted by the Environmental Management Commission, the procedures applicable to issuance of special orders by consent shall be followed as provided in this section.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.110;
Eff. December 1, 1976.

SECTION .0800 - COMPLEX SOURCES

.0801 PURPOSE AND SCOPE

(a) The purpose of this Section is to set forth requirements of the commission relating to construction or modification of a facility, building, structure, or installation or combination thereof which may result in violation of ambient air quality standards.

(b) This Section shall apply to any person who proposes to construct or modify any facilities which would result in:

(1) open parking lots, including shopping center lots having 1,500 or more vehicle capacity, and parking decks, including shopping center decks and parking garages having capacity for 750 or more vehicles;

(2) subdivisions, housing developments, apartment complexes, and trailer courts having 500 or more units resulting in a population density of 7,680 per square mile (12 persons per acre) or more;

(3) stadiums and sports arenas having a seating capacity of 25,000 or more, or 8,000 vehicle parking spaces or more;

(4) drive-in theaters having 700 or more parking spaces; or

(5) amusement parks and recreation areas designed to serve 25,000 persons per day or more, or to accommodate parking of 8,000 vehicles or more.

(c) For purposes of this Section any facility which on November 15, 1973, is under construction, or is being installed, or is the subject of a contract for construction, installation or purchase, shall not be considered to be a new air contaminant source.

(d) Approval to construct or modify an indirect source shall not relieve any owner or operator of the responsibility to comply with the state control strategy and all local and state regulations which are part of the North Carolina implementation plan.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.109;
Eff. February 1, 1976;
Amended Eff. December 1, 1976.

.0802 PERMITS

(a) No person shall construct or modify any facility set forth in Regulation .0801 (b) (1) to .0801 (b) (5) of this Section until such person has applied for and received a permit from the commission, and has complied with any and all terms and conditions therein.

(b) All applications for permits to construct or modify a complex source shall be made on forms provided by the commission and may include, at the discretion of the commission, a requirement that the owner of the source conduct air quality monitoring and perform dispersion and diffusion analysis to predict impact of proposed construction or modification on air quality.

(c) Prior to approving or disapproving the construction or modification of any complex source, the information submitted by the owner or operator, as well as the agency's analysis of the effect on ambient air quality (including the agency's preliminary approval or disapproval), shall be made available for public inspection in at least one location in the region affected. This shall be accomplished by publishing a notice by prominent advertisement in the region affected, and shall allow a 30-day period for submittal of public comment.

(d) The commission shall not approve any application for a permit which would:

    (1) interfere with the attainment or maintenance of any ambient air quality standard, or

    (2) result in violation of applicable portions of the implementation plan control strategy.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.109;
Eff. February 1, 1976.

.0803 HIGHWAY PROJECTS

In accordance with the National Environmental Policy Act, and the North

Carolina Environmental Policy Act, assessments regarding highway projects will be reviewed. If there is no assessment, or if an assessment fails to complement the purpose of this Regulation due to negative declaration, improper address to the air problem, insufficient information, or failure in abatement proceedings, or if the environmental impact assessment fails to show that the highway project will not result in violations of applicable portions of the control strategy, and will not interfere with attainment or maintenance of a national standard, then the following regulatory provisions shall apply:

(1) No person shall construct or modify any highway if that highway will result in a contravention of ambient air quality standards;

(2) No person shall construct or modify any highway with an expected maximum traffic volume of 2,000 vehicles per hour or more within 10 years, unless or until such person has applied for and received a permit from the commission, and has complied with any terms and conditions therein.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.109;
Eff. February 1, 1976.

.0804 AIRPORT FACILITIES

No person shall construct or modify any airport facility expected to have 100,000 or more annual aircraft operations, or 45 or more peak-hour aircraft operations (one operation equals one takeoff, or one landing) within 10 years, unless or until such person has applied for and received a permit from the commission, and has complied with any and all terms and conditions therein.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.109;
Eff. February 1, 1976.

SECTION .0900 - VOLATILE ORGANIC COMPOUNDS

.0901 DEFINITIONS

For the purpose of this Section, the following definitions apply:

(1) "Approved"means approved by the Director of the Division of Environmental Management.

(2) "Capture system" means the equipment (including hoods, ducts, fans, etc.) used to contain, capture, or transport a pollutant to a control device.

(3) "Coating applicator" means an apparatus used to apply a surface coating.

(4) "Coating line" means one or more apparatus or operations which include a coating applicator, flashoff area, and oven wherein a surface coating is applied, dried, and/or cured.

(5) "Construction" means commencement of on site fabrication, erection, or installation of an emission source air pollution control equipment, or a facility.

(6) "Control device"means equipment (incinerator, adsorber, or the like) used to destroy or remove air pollutant(s) prior to discharge to the ambient air.

(7) "Continuous vapor control system" means a vapor control system which treats vapors displaced from tanks during filling on a demand basis without intermediate accumulation.

(8) "Day" means a 24-hour period beginning at midnight.

(9) "Director" means the Director of the Division of Environmental Management.

(10) "Emission" means the release or discharge, whether directly or indirectly, of any air pollutant into the ambient air from any source.

(11) "Facility" means any building, structure, installation, activity, or combination thereof which contains one or more stationary sources of air contaminants.

(12) "Flashoff area" means the space between the application area and the oven.

(13) "Hydrocarbon" means any organic compound of carbon and hydrogen only.

(14) "Incinerator" means a combustion apparatus designed for high temperature operation in which solid, semisolid, liquid, or gaseous combustible wastes are ignited and burned efficiently and from which the solid and gaseous residues contain little or no combustible material.

(15) "Intermittent vapor control system" means a vapor control system which employs an intermediate vapor holder to accumulate vapors displaced from tanks during filling. The control device treats the accumulated vapors only during automatically controlled cycles.

(16) "Loading rack" means an aggregation or combination of loading equipment arranged so that all loading outlets in the combination can be connected to a tank truck or trailer parked in a specified loading space.

(17) "Organic material" means a chemical compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.

(18) "Oven" means a chamber within which heat is used to bake, cure, polymerize, and/or dry a surface coating.

(19) "Owner or operator" means any person who owns, leases, controls, operates or supervises a facility, an emission source, or air pollution control equipment.

(20) "Person" means any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, political subdivision, or any other legal entity, or its legal representative, agent or assigns.

(21) "Prime coat" means the first film of coating applied in a two-coat operation.

(22) "Reasonably available control technology" (also denoted as RACT) means the lowest emission limit which a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. It may require technology which has been applied to similar, but not necessarily identical, source categories.

(23) "Reid vapor pressure" means the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids except liquified petroleum gases as determined by American Society for Testing and Materials, Part 17, 1973, D-323-72 (reapproved 1977).

(24) "Shutdown" means the cessation of operation of a facility or emission control equipment.

(25) "Solvent" means organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents.

(26) "Standard conditions" means a temperature of 20° C (68° F) and pressure of 760 millimeters of mercury (29.92 inches of mercury).

(27) "Startup" means the setting in operation of a source or emission control equipment.

(28) "Source" means any stationary article, machine, process equipment, or other contrivance or any tank-truck, trailer or railroad tank car from which air pollutants emanate or are emitted, either directly or indirectly.

(29) "Topcoat" means the final film of coating applied in a multiple coat operation.

(30) "True vapor pressure" means the equilibrium partial pressure exerted by a petroleum liquid as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, "Evaporation Loss from Floating Roof Tanks," 1962.

(31) "Vapor collection system" means a vapor transport system which uses direct displacement by the liquid loaded to force vapors from the tank into a vapor control system.

(32) "Vapor control system" means a system which prevents release to the atmosphere of at least 90 percent by weight of organic compounds in the vapors displaced from a tank during the transfer of gasoline.

(33) "Volatile organic compound" (also denoted as VOC) means any compound of carbon which has a vapor pressure of 1.5 pounds per square inch absolute (77.6 mm Hg)or greater under actual storage conditions or whose volatile content can be determined by the procedure described in Regulation .0913 excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
Eff. July 1, 1979.

.0902 APPLICABILITY

(a) Except as provided under Subdivision (b) of this Regulation, after June 30, 1979, this Section applies throughout the entire State of North Carolina, in accordance with the schedules in Regulations .0907 through .0911 of this Section, to all sources of volatile organic compounds.

(b) This Section does not apply to:

(1) sources whose emissions of volatile organic compounds are not more than 6.8 kilograms (15 pounds) in any one day (This Subdivision does not apply to the manufacture and use of cutback asphalt); or

(2) sources at a facility where the total of potential (before control) emissions of volatile organic compounds from all stationary sources at the facility is not more than 90,720 kilograms (100 tons) in any one year (This Subdivision does not apply to the manufacture and use of cutback asphalt); or

(3) facilities located in an area which is not designated by the U.S. Environmental Protection Agency to be a nonattainment area for photochemical oxidants or ozone as of April 30, 1979; or

(4) to the manufacture and use of cutback asphalts in an area which is not designated by the U.S. Environmental Protection Agency to be a nonattainment area for photochemical oxidants or ozone as of April 30, 1979; or

(5) sources used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance provided:

  (A) The operation of the source is not an intergral part of the production process; and

  (B) The emissions from the source do not exceed 363 kilograms (800 pounds) in any calendar month; and

  (C) The exemption is approved in writing by the director; or

(6) emissions of volatile organic compounds which are subject to limitation under Regulations .0524 or .0525 of this Subchapter; or

(7) emissions of volatile organic compounds during startup or shutdown operations from sources which use incineration or other types of combustion to control emissions of volatile organic compounds whenever the off-gas contains an explosive mixture during the startup or shutdown operation provided such exemption is approved by the director.

(c) For the purposes of this Section the following will not be considered volatile organic compounds:

(1) methane
(2) ethane
(3) trichlorotrifluoroethane (Fluorocarbon 113).

(d) Sources whose emissions of volatile organic compounds are not subject to limitation under this Section may still be subject to emission limits on volatile organic compounds in Regulation .0518, .0524, or .0525 of this Subchapter.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(5);
Eff. July 1, 1979.

.0903 RECORDKEEPING, REPORTING, MONITORING

(a) This Regulation applies to sources at a facility where the total of potential emissions of volatile organic compounds from all stationary sources at the facility is equal to or greater than 90,720 kilograms (100 tons) in any one year and applies to control equipment installed to comply with Regulations .0917 through .0939 of this Section.

(b) The owner or operator of any volatile organic compound emission source or control equipment shall maintain, as a minimum: records detailing all activities relating to any compliance schedule under Regulations .0907 through .0911 of this Section, records detailing all malfunctions under Regulation .0904 of this Section, and records of all testing conducted under Regulations .0912 through .0916 of this Section, plus records of all monitoring conducted under Subdivisions (d)(1) and (d)(2) of this Regulation.

(c) The owner or operator of any volatile organic compound emission source or control equipment shall submit reports detailing the nature, specific sources, total annual quantities of volatile organic compound emissions or sufficient information to estimate the quantities of volatile organic compound emissions and any other pertinent information to the director when requested.

(d) The owner or operator of any volatile organic compound emission source or control equipment shall:

(1) install, operate, and maintain process and/or control equipment monitoring instruments or procedures as necessary to comply with Subdivisions (b) and (c) of this Regulation; and
(2) maintain, in writing, data and/or reports relating to monitoring instruments or procedures which will, upon review, document the compliance status of the volatile organic compound emission source or control equipment to the satisfaction of the director.

(e) Copies of all records and reports under Subdivisions (b), (c), and (d) of this Regulation shall be retained by the owner or operator for a minimum of two years after the date on which the record was made or the report submitted, except that the director may extend the retention period in particular instances.

(f) Copies of all records and reports under this Section shall be made available within a reasonable time to the director upon written request.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.68; 143-215.107(a)(5);
Eff. July 1, 1979.
Amended Eff. June 1, 1980

.0904 MALFUNCTIONS, BREAKDOWNS, UPSETS

Emissions in excess of those permitted in this Section which last for more than four hours and result solely from a sudden and unavoidable breakdown, malfunction or upset of process or emission control equipment, or sudden and unavoidable upset of operation will require that:

(1) The owner or operator notifies the director of any such occurrence within 24 hours of becoming aware of the occurrence excluding weekends and holidays; and

(2) The owner or operator demonstrates to the director that the suggested period of time for correction is as expeditious as practicable; and

(3) Within 15 days after the beginning of the occurrence, a written report is submitted to the director which includes the cause and nature of the event, estimated quantity of volatile organic compounds emitted, time of emission and steps taken to control the emission and to prevent recurrence; and

(4) The director is immediately notified when corrective measures have been accomplished or during the next business day when not accomplished during a business day.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.68; 143-215.107(a)(5);
Eff. July 1, 1979.

.0905 PETITION FOR ALTERNATIVE CONTROLS

(a) If the owner or operator of any source of volatile organic compounds can demonstrate that compliance with Regulations .0917 through .0931 of this Section would be technologically or economically infeasible, he may petition the director to allow the use of alternative operational and/or equipment controls for the reduction of volatile organic compound emissions. Petition must be made for each source to the director before January 1, 1980, if the source is in existence or under construction on the effective date of this Regulation or before construction otherwise, and must contain

(1) the name and address of the company and the name and telephone number of a company officer over whose signature the petition is submitted; and

(2) a description of all operations conducted at the location to which the petition applies and the purpose that the volatile organic compound emitting equipment serves within the operations; and

(3) reference to the specific operational and/or equipment controls under Regulations .0917 through .0931 of this Section for which alternative operational and/or equipment controls are proposed; and

(4) a detailed description of the proposed alternative operational and/or equipment controls, the magnitude of volatile organic compound emission reduction which will be achieved, and the quantity and composition of volatile organic compounds which will be emitted if the alternative operational and/or equipment controls are instituted; and

(5) a plan, which will be instituted in addition to the proposed alternative operational and/or equipment controls, to reduce, where technologically and economically feasible, volatile organic compound emissions from other source operations at the facility,further than that required under Regulations .0917 through .0924 and .0927 of thi Section, provided such sources exist at the facility,such tha aggregate volatile organic compound emissions from the facility will in no case be greater through application of the alternative control than would be permitted through conformance with Regulations .0917 through .0924 and .0927 of this Section; and

(6) a schedule for the installation and/or institution of the alternative operational and/or equipment controls in conformance with Regulations .0907 through .0911 of this Section; and

(7) certification that emissions of all other air contaminants from the subject source are in compliance with all applicable local, state, and federal laws and regulations.

The petition may include a copy of the permit application and need not duplicate information in the permit application.

(b) The director shall approve a Petition for Alternative Control if:

(1) The petition is submitted in accordance with Subdivision (a) of this Regulation; and

(2) The director determines that the petitioner cannot comply with Regulations .0917 thorugh .0931 of this Section because of technological or economical infeasibility; and

(3) All other air contaminant emissions from the subject facility are in compliance with, or under a schedule for compliance as expeditiously as practicable with, all applicable local, State, and federal regulations; and

(4) The petition contains a schedule for achieving and maintaining reduction of volatile organic compound emissions to the maximum extent feasible and as expeditiously as practicable; and

(5) A nuisance condition will not result from operation of the source as proposed in the petition.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.68;143-215.107(a)(5);
Eff.July 1, 1979.

.0906 CIRCUMVENTION

(a) No owner or operator subject to this Section may build, erect, install, or use any article, machine, equipment, process, or method, the use of which conceals an emission which would otherwise constitute a violation of an applicable regulation.

(b) Subdivision (a) of this Regulation includes, but is not limited to, the use of gaseous dilutants to achieve compliance and the piecemeal carrying out of an operation to avoid coverage by a regulation that applies only to operations larger than a specified size.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(5);
Eff.July 1, 1979.

.0907 EQUIPMENT INSTALLATION COMPLIANCE SCHEDULES

(a) Except as provided under Regulation .0910 or .0911 of this Section, the owner or operator of an existing (as of June 30, 1979) volatile organic compound emission source proposing to install and operate volatile organic compound emission control equipment and/or replacement process equipment to comply with Regulations .0917 through .0931 of this Section shall adhere to the increments of progress contained in the following schedule:

(1) Final plans for the emission control system and/or process equipment must be submitted before January 1, 1980.

(2) Contracts for the emission control system and/or process equipment must be awarded or orders must be issued for purchase of component parts to accomplish emission control before June 1, 1980.

(3) Initiation of on-site construction or installation of the emission control and/or process equipment must begin before November 1, 1980.

(4) On-site construction or installation of the emission control and/or process equipment must be completed before June 1, 1981.

(5) Final compliance, determined in accordance with Regulations .0912 through .0916 of this Section, shall be achieved before August 1, 1981.

(6) Any owner or operator of a stationary emission source subject to the compliance schedule of this Regulation shall certify to the director within five days after the deadline for each increment of progress, whether the required increment of progress has been met.

(b) Except as provided under Regulation .0910 of this Section, the owner or operator of a new volatile organic compound source not in existence as of June 30, 1979, shall comply with Regulations .0917 through .0931 of this Section upon source start-up.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.68; 143-215.107(a)(5);
Eff. July 1, 1979.

.0908 EQUIPMENT MODIFICATION COMPLIANCE SCHEDULES

Except as provided under Regulation .0910 or .0911 of this Section, the owner or operator of an existing (as of June 30, 1979) volatile organic compound emission source proposing to comply with Regulations .0917 through .0931 of this Section by modification of existing processing equipment shall adhere to the increments of progress contained in the following schedule:

(1) Final plans for process modification must be submitted before January 1, 1980.

(2) Contracts for process modifications must be awarded or orders must be issued for the purchase of component parts to accomplish process modifications before April 1, 1980.

(3) Initiation of on-site construction or installation or process modifications must begin before August 1, 1980.

(4) On-site construction or installation of process modifications must be completed before February 1, 1981.

(5) Final compliance, determined in accordance with Regulations .0912 through .0916 of this Section, shall be achieved before May 1, 1981.

(6) Any owner or operator of a stationary source subject to the compliance schedule of this Regulation shall certify to the director within five days after the deadline for each increment of progress, whether the required increment of progress has been met.

History Note Statutory Authority G.S. 143-215.3(a)(1);
143-215.68; 143-215.107(a)(5);
Eff. July 1, 1979.

.0909 LOW SOLVENT CONTENT COATING COMPLIANCE SCHEDULES

(a) Except as provided under Regulation .0910 or .0911 of this Section or under Subdivision (b) of this Regulation, the owner or operator of an existing (as of June 30, 1979) volatile organic compound emission source proposing to employ low solvent content coating technology to comply with Regulations .0917 through .0931 of this Section shall adhere to the increments of progress contained in the following schedule:

(1) Final plans for the application of low solvent content coating technology must be submitted before January 1, 1980.
(2) Research and development of low solvent content coating must be completed before August 1, 1980.
(3) Evaluation of product quality and commercial acceptance must be completed before March 1, 1981.
(4) Purchase orders must be issued for low solvent content coatings and process modifications before June 1, 1981.
(5) Initiation of process modifications must begin before September 1, 1981.
(6) Process modifications must be completed and use of low solvent content coatings must begin before March 1, 1982.
(7) Final compliance, determined in accordance with Regulations .0912 through .0916 of this Section, shall be achieved before May 1, 1982.
(8) Any owner or operator of a stationary source subject to the compliance schedule of this Regulation shall certify to the director within five days after the deadline for each increment of progress, whether the required increment of progress has been met.

(b) Where the director determines that low solvent content coating technology has been sufficiently researched and developed for a particular application, the owner or operator of a volatile organic compound emission source proposing to comply with Regulations .0917 through .0931 of this Section through application of low solvent content coatings shall adhere to the increments of progress contained in the following schedule:

(1) Final plans for the application of low solvent content coating technology must be submitted before January 1, 1980.
(2) Evaluation of product quality and commercial acceptance must be completed before August 1, 1980.

(3) Purchase orders must be issued for low solvent content coatings and process modifications before November 1, 1980.
(4) Initiation of process modifications must begin before February 1, 1981.
(5) Process modifications must be completed and use of low solvent content coatings must begin before August 1, 1981.
(6) Final compliance, determined in accordance with Regulations .0912 through .0916 of this Section, shall be achieved before October 1, 1981.
(7) Any owner or operator of a stationary source subject to the compliance schedule of this Regulation shall certify to the director within five days after the deadline for each increment of progress, whether the required increment of progress has been met.

(c) Except as provided under Regulation .0910 of this Section, the owner or operator of a new volatile organic compound source not in existence as of June 30, 1979, shall comply with Regulations .0917 through .0931 of this Section upon source start-up.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.68; 143-215.107(a)(5);
Eff. July 1, 1979.

.0910 ALTERNATE COMPLIANCE SCHEDULES

(a) Nothing in this Section shall prevent the director from promulgating a separate schedule for any source if he finds that the application of a compliance schedule in Regulations .0907 through .0909 of this Section would be technologically or economically infeasible.

(b) Nothing in this Section shall prevent the owner or operator of a volatile organic compound source from submitting to the director a proposed alternative compliance schedule, provided:

(1) The proposed alternative compliance schedule is submitted before January 1, 1980; and
(2) The final control plans for achieving compliance with Regulations .0917 through .0931 of this Section are submitted simultaneously; and
(3) The alternative compliance schedule contains the same increments of progress as the schedule for which it is proposed as an alternative; and
(4) sufficient documentation and certification from appropriate suppliers, contractors, manufacturers,

or fabricators is submitted by the owner or operator of the volatile organic compound source to justify the dates proposed for the increments of progress.

(c) Nothing in this Section shall prevent the owner or operator of a volatile organic compound source from submitting to the director an alternative compliance schedule for the phase-out or shut-down of a volatile organic compound source, provided:

(1) The proposed alternative compliance schedule is submitted before January 1, 1980; and

(2) The final control plans for achieving compliance with Regulations .0917 through .0931 of this Section are submitted sumultaneously.

(d) All alternative compliance schedules proposed or promulgated under this Regulation shall provide for compliance of the volatile organic compound emission source with Regulations .0917 through .0931 of this Section as expeditiously as practicable but not later than December 31, 1982.

(e) Any schedule approved under this Regulation may be revoked at any time if the source does not meet the increment of progress stipulated.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.68; 143-215.107(a)(5);
Eff. July 1, 1979.

.0911 EXCEPTION FOR COMPLIANCE SCHEDULES

Regulations .0907 through .0910 of this Section will not apply to sources which are in compliance with Regulations .0917 through .0931 of this Section before July 1, 1979, and have determined and certified compliance to the satisfaction of the director before October 1, 1979.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.68; 143-215.107(a)(5);
Eff. July 1, 1979.

.0912 GENERAL PROVISIONS ON TEST METHODS AND PROCEDURES

(a) The owner or operator of any volatile organic compound source required to comply with Regulations .0917 through .0931 of this Section shall, at his own expense, demonstrate compliance by the methods of Regulations .0912 through .0916 of this Section or an alternative method approved by the director. No owner or operator, however, shall be required to demonstrate compliance with Regulations .0917 through .0931 of this Section unless the director requests such demonstration. The director shall explain to the owner or operator the basis for requesting a demonstration of compliance and shall allow reasonable time for testing to be performed. All tests shall be made by, or under the direction of, a person qualified by training and/or experience in the field of air pollution testing.

(b) No volatile organic compound emissions compliance testing will be allowed, nor the results accepted, unless prior notification has been supplied to the director as required under Subdivisions (c) and (d) of this Regulation and the director has granted approval.

(c) Any person proposing to conduct a volatile organic compound emissions test shall notify the director, in the manner set forth under Subdivision (d) of this Regulation, of the intent to test not less than 21 days before the proposed initiation of the tests so the director may at his option observe the test.

(d) Any person notifying the director of a proposed volatile organic compound emissions test shall include as part of notification the following minimum information:

(1) a statement indicating the purpose of the proposed test and the applicable subsection of Regulations .0917 through .0931 of this Section; and
(2) a detailed description of the facility to be tested; and
(3) a detailed description of the test procedures, equipment, and sampling sites; and
(4) a timetable, setting forth the dates on which
    (A) The testing will be conducted; and
    (B) Preliminary test results will be reported (not later than 30 days after sample collection); and
    (C) The final test report will be submitted (not later than 60 days after completion of on-site sampling).

(e) If the volatile organic compound emissions test shows noncompliance, the owner or operator of the volatile organic source shall submit along with the final test report proposed corrective action.

(f) For compliance determination, the owner or operator of any volatile organic compound emissions source shall be responsible for providing:

(1) sampling ports, pipes, lines, or appurtenances for the collection of samples and data required by the test procedure; and
(2) safe access to the sample and data collection locations; and
(3) light, electricity, and other utilities required for sample and data collection.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.68;143-215.107(a)(5);
Eff. July 1, 1979.

.0913 DETERMINATION OF VOLATILE CONTENT OF SURFACE COATINGS

(a) This Regulation applies, in accordance with Regulation .0912 of this Section,to paint, varnish, lacquer, and surface coatings which are air-dried or force-dried.

(b) This method does not apply to any coating system requiring a special curing process such as:

(1) exposure to temperatures in excess of 110°C (230°F) to promote thermal cross-linking, or

(2) exposure to ultraviolet light to promote cross-linking.

(c) For the purposes of this method, the applicable surface coatings are divided into three classes. They are:

(1) Class I; General Solvent-Type Paints. This class includes white linseed oil outside paint, white soya and phthalic alkyd enamel, white linseed o-phthalic alkyd enamel, red lead primer, zinc chromate primer, flat white inside enamel, white epoxy enamel, white vinyl toluene modified alkyd, white amino modified baking enamel, and other solvent-type paints not included in class II.

(2) Class II; Varnishes and Lacquers. This class includes clear and pigmented lacquers and varnishes.

(3) Class III; Water Thinned Paints. This class includes emulsion or latex paints and colored enamels.

(d) For the purposes of this method, a representative sample of the surface coating shall be obtained at the point of delivery to the coater or any other point in the process that the director approves.

(e) The volatile organic content of the sample shall be determined as follows:

(1) assign the coating to one of the three classes in Subdivision (c) of this Regulation; assign any coating not clearly belonging to class II or III to class I;

(2) determine the density Dm (in grams/cubic centimeter) of the paint, varnish, lacquer, or related product according to the procedure outlined in ASTM D 1475-60, Standard Method of Test for Density of Paint, Varnish, Lacquer, and Related Products; (ASTM refers to the American Society for Testing and Materials and their methods.) then, depending on the class of the coating, use one of the following specified procedures to determine the volatile content:

(A) Class I. Use the procedure in ASTM D 2369-73, Standard Method of Test for Volatile Content of Paints;

(i) Record the following information:

W_1 = Weight of dish and sample, grams

W_2 = Weight of dish and sample after heating, grams

S = Sample weight, grams

(ii) Compute the volatile matter content Cv (in grams/liter of paint) as follows:

$$Cv = \frac{(W_1 - W_2)(Dm)(10^3)}{S}$$

(iii) To convert grams/liter to pounds/gallon, multiply Cv by 8.3455×10^{-3}.

(B) Class II. Use the procedure in ASTM D 1644-59 Method A, Standard Methods of Test for Nonvolatile Content of Varnishes (Do Not use Method B).

(i) Record the following information:
A = Weight of dish, grams
B = Weight of sample used, grams
C = Weight of dish and contents after heating, grams.

(ii) Compute the volatile matter content C_v (in grams/liter) as follows:

$$Cv = \frac{(A + B - C)(Dm)(10^3)}{B}$$

(iii) To convert grams/liter to pounds/gallon, multiply Cv by 8.3455×10^{-3}.

(C) Class III. Use the procedure in ASTM D 2369-73, Standard Method of Test for Volatile Content of Paints:

(i) Record the same information as specified in Subdivision (e)(2)(A) of this Regulation.

(ii) Determine the water content P (in percent water) of the paint according to the procedure outlined in Federal Standard 141a, Method 4082.1, Water in Paint and Varnishes (Karl Fischer Titration Method).

(iii) Compute the nonaqueous volatile matter content Cv (in grams/liter) as follows:

$$Cv = \frac{(W1 - W2 - 0.01\ PS)(Dm)(10^3)}{S}$$

(iv) To convert grams/liter to pounds/gallon, multiply Cv by 8.3455×10^{-3}.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.68; 143-215.107(a)(5);
Eff.July 1, 1979.

.0914 DETERMINATION OF VOC EMISSION CONTROL SYSTEM EFFICIENCY

(a) The provisions of this Regulation are generally applicable, in accordance with Regulation .0912 of this Section, to any test method employed to determine the collection or control efficiency of any device or system designed, installed, and operated for the purpose of reducing volatile compound emissions.

(b) The following procedures shall be included in any efficiency determination:

(1) The volatile organic compound containing material shall be sampled and analyzed in a manner approved by the director such that the quantity of emissions that could result from the use of the material can be quantified.

(2) The efficiency of any capture system used to transport the volatile organic compound emissions from their point of origination to the control equipment shall be computed using accepted engineering practice and in a manner approved by the director.

(3) Samples of the volatile organic compound containing gas stream shall be taken simultaneously at the inlet and outlet of the emissions control device in a manner approved by the director.

(4) The total combustible carbon content of the samples shall be determined by a method approved by the director.

(5) The efficiency of the control device shall be expressed as the fraction of total combustible carbon content reduction achieved.

(6) The volatile organic compound mass emission rate shall be the sum of emissions from the control device emissions not collected by the capture system and capture system losses.

(c) The methods approved by the director under Subdivision (b) of this Regulation shall be made available upon request to the public by the director.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.68; 143-215.107(a)(5);
Eff.July 1, 1979.

.0915 DETERMINATION OF SOLVENT METAL CLEANING VOC EMISSIONS

(a) This method is applicable to determining volatile organic compound emissions from solvent metal cleaning equipment.

(b) The purpose of this method is to quantify, by material balance, the amount of solvent input into a degreaser over a sufficiently long period of time so that an average emission rate can be computed.

(c) The following procedure shall be followed to perform a material balance test:

(1) clean the degreaser sump before testing;
(2) record the amount of solvent added to the tank with a flow meter;
(3) record the weight and type of work load degreased each day;
(4) at the end of the test run, pump out the used solvent and measure the amount with a flow meter; also, estimate the volume of metal chips and other material remaining in the emptied sump, if significant;
(5) bottle a sample of the used solvent and analyze it to find the percent that is oil and other contaminants; the oil and solvent proportions can be estimated by weighing samples of used solvent before and after boiling off the solvent. Compute the volume of oils in the used solvent. The volume of solvent displaced by this oil along with the volume of make-up solvent added during operations is equal to the solvent emissions.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.68; 143-215.107(a)(5);
Eff. July 1, 1979.

.0916 DETERMINATION OF VOC EMISSIONS FROM BULK GASOLINE TERMINALS

(a) Principle. VOC mass emissions are determined directly using flow meters and hydrocarbon analyzers. The volume of liquid gasoline dispensed is determined by computation based on the metered quantity of gasoline at the loading rack. Test results are expressed in milligrams of hydrocarbons emitted per liter of gasoline transferred.

(b) Summary of the Method. This method describes the test conditions and test procedures to be followed in determining the emissions from systems installed to control volatile organic compound vapors resulting from tank truck and trailer loading operations at bulk terminals. Under this procedure, direct measurements are made to compute the hydrocarbon mass exhausted from the vapor control system. All possible sources of leaks are qualitatively checked to insure that no uncontrolled vapors are emitted to the atmosphere. The results are expressed in terms of mass hydrocarbons emitted per unit volume of gasoline transferred. Emissions are determined on a total hydrocarbon basis. If methane is present in the vapors returned from the tank trucks or trailers, provisions are included for conversion to a total nonmethane hydrocarbon basis.

(c) Applicability. This method is applicable to determining VOC emission rates at tank truck and trailer gasoline loading terminals employing vapor collection systems and either continuous or intermittent vapor control systems. This method is applicable to motor tank truck and trailer loading only as per Regulation .0927 of this Section.

(d) Apparatus. The components essential to the evaluation of emissions from gasoline loading terminals are:

(1) portable combustible gas detector equipped to read 0 to 100 percent of the lower explosive limit;
(2) flexible thermocouple with recorder;
(3) gas volume meter, sized for the expected exhaust flow rate and range;
(4) total hydrocarbon analyzer with recorder (flame ionization detector or nondispersive infrared equipped to read 0 to 10 percent by volume hydrocarbon as propane for vapor control systems which recover the vapor as liquid; or 0 to 10,000 ppmv hydrocarbon as propane for incineration vapor control systems);
(5) barometer to measure atmospheric pressure
(6) gas chromatography/flame ionization detector with a column to separate C1 through C7 alkanes; used if methane is present in recovered vapors or if incineration is the vapor control technique.

(e) Test Requirements
   (1) No less than three eight-hour test repetitions will be performed.
   (2) During the test period, all loading racks shall be open for each product line which is controlled by the system under test. Simultaneous use of more than one loading rack shall occur to the extent that such use would normally occur.
   (3) Simultaneous use of more than one dispenser on each loading rack shall occur to the extent that such use would normally occur.
   (4) Dispensing rates shall be set at the maximum rate at which the equipment is designed to be operated. Automatic product dispensers are to be used according to normal operating practices.
   (5) Applicable operating parameters of the vapor control system shall be monitored to demonstrate that the control unit is operating at design levels. For intermittent vapor control systems employing a vapor holder, each test repetition shall include at least one fully automatic operation cycle of the vapor holder and control device. Tank trucks and trailers shall be essentially leak free as determined by the director.

(f) Basic Measurements Required. The basic measurements essential to the evaluation of emissions from gasoline loading terminals are:
   (1) the amount of gasoline dispensed from gasoline dispensers;
   (2) leak check of all fittings and vents,
   (3) the following items for the processing unit exhaust:
      (A) temperature,
      (B) pressure,
      (C) volume of vapors,
      (D) hydrocarbon concentration of vapors,
      (E). gas chromatograph analysis of vapors if methane is present in recovered vapors.

(g) Test Procedure
   (1) calibrate and span all instruments as outlined under Subdivision (j) of this Regulation;
   (2) install an appropriately sized gas meter on the exhaust vent of the vapor control system; For those vapor control systems where size restrictions preclude the use of a volume meter, or when incineration is used for vapor control, a gas flow rate meter (orifice, pitot tube, annubar, etc.) is necessary. At the meter inlet, install a thermocouple with recorder. Install a tap at the volume meter outlet. Attach a sample line for a total hydrocarbon analyzer (0 to 10 percent as propane) to this tap. If the meter pressure is different than barometric pressure, install a second tap at

the meter outlet and attach an appropriate manometer for pressure measurement. If methane analysis is required, install a third tap for connection to a constant volume sample pump/evacuated bag assembly as described in Method 3 of Appendix A of 40 CFR Part 60 (CFR refers to Code of Federal Regulations.);

(3) measurements and data required for evaluating emissions from the system:
  (A) at the beginning and end of each test repetition, record the volume readings on each product dispenser on each loading rack served by the system under test;
  (B) at the beginning of each test repetition and each two hours thereafter, record the ambient temperature and the barometric pressure;
  (C) for intermittent vapor control systems employing a vapor holder, the unit shall be manually started and allowed to process vapors in the holder until the lower automatic cut-off is reached; This cycle should be performed immediately prior to the beginning of the test repetition before readings required under Subdivision (g)(3)(A) of this Regulation are taken. No loading shall be in progress during this manual cycle;
  (D) for each cycle of the vapor control system during each test repetition, record the start and stop time, the initial and final gas meter readings, and the average vapor temperature, pressure and hydrocarbon concentration; If a flow rate meter is used, record flow meter readouts continuously during the cycle. If required, extract a sample continuously during each cycle for chromatographic analysis for specific hydrocarbons;
  (E) for each tank truck or trailer loading during the test period, check all fittings and seals on the tanker compartments with the combustible gas detector; Record the maximum combustible gas reading for any incidents of leakage of hydrocarbon vapors. Explore the entire periphery of the potential leak source with the sample hose inlet 1.0 cm (0.4 inches) away from the interface;
  (F) during each test period, monitor all possible sources of leaks in the vapor collection and control systems with the combustible gas indicator; Record the location and combustible gas reading for any incidents of leakage,

(G) for intermittent vapor control systems, the control unit shall be manually started and allowed to process vapors in the holder until the lower automatic shut-off is reached at the end of each test repetition; Record the data required under Subdivision (g)(3)(D) of this Regulation for this manual cycle. No loading shall be in progress during this manual cycle.

(h) Calculations:

(1) terminology:

Ta = ambient temperature (°C)
pb = barometric pressure (mm Hg)
Lt = total volume of liquid dispensed from all controlled racks during the test period (liters)
V_e = volume of air-hydrocarbon mixture exhausted from the processing unit (m^3)
V_{es} = normalized volume of air-hydrocarbon mixture exhausted, Nm^3 @ 20°C, 760 mmHg
Ce = volume fraction of hydrocarbons in exhausted mixture (volume % as C_3H_8 /100, corrected for methane content if required)
Te = temperature at processing unit exhaust (°C)
Pe = pressure at processing unit exhaust (mm Hg abs)
$(M/L)_e$ = mass of hydrocarbons exhausted from the processing unit per volume of liquid loaded, (mg/ℓ) (milligrams/liter);

(2) calculate the following results for each period of the vapor control system operation:

(A) volume of air-hydrocarbon mixture exhausted from the vapor control system:

$V_e = V_{ef} - V_{ei}$, or (m^3)
Ve = totalized volume from flow rate and time records.
Vef = final volume; Vei= initial volume

(B) normalized volume of exhausted mixture:

$$V_{es} = \frac{(0.3858\ {}^{\circ}K/mmHg)\ V_e\ P_e}{(T_e + 273.2)}\ Nm^3 \text{ @ } 20^{\circ}C,\ 760\ mmHg$$

(C) mass of hydrocarbons exhausted from the vapor control system:

$$M_e = \left(1.833 \times 10^6\ \frac{mgC3H8}{Nm^3C^3H8}\right) \times V_{es}\ C_e\ (mg)$$

(3) calculate the average mass of hydrocarbons emitted per volume of gasoline loaded:

$$(M/L)_e = \frac{\Sigma M_e}{L_t}\ (mg/liter)$$

(j) Calibrations

(1) Flow meters shall be calibrated using standard methods and procedures which have been approved by the director.

(2) Temperature recording instruments shall be calibrated prior to a test period and following the test period using an ice bath (0°C) and a known reference temperature source of about 35°C. Daily during the test period, use an accurate reference to measure the ambient temperature and compare the ambient temperature reading of all other instruments to this value.

(3) Manufacturer's instructions concerning warm-up and adjustments shall be followed for total hydrocarbon analyzers. Prior to and immediately after the emission test, perform a comprehensive laboratory calibration on each analyzer used. Calibration gases should be propane in nitrogen prepared gravimetrically with mass quantities of approximately 100 percent propane. A calibration curve shall be provided using a minimum of five prepared standards in the range of concentrations expected during testing:

(A) For each repetition, zero with zero gas {no more than 3 ppm C (C refers to carbon)} and span with 70 percent propane for instruments used in the vapor lines and with 10 percent propane for instruments used at the vapor control system exhaust.

(B) The zero and span procedure shall be performed at least once prior to the first test measurement, once during the middle of the run, and once following the final test measurement for each run.

(C) Conditions in calibration gas cylinders must be kept such that condensation of propane does not occur. A safety factor of two for pressure and temperature is recommended.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.68; 143-215.107(a)(5);
Eff. July 1, 1979.

.0917 AUTOMOBILE AND LIGHT-DUTY TRUCK MANUFACTURING

(a) For the purpose of this Regulation, the following definitions apply:

(1) "Application area" means the area where the coating is applied by dipping or spraying.

(2) "Manufacturing plant" means a facility where auto body parts are manufactured and/or finished for eventual inclusion into a finished product ready for sale to vehicle dealers. Customizers, body shops and other repainters are not part of this definition.

(3) "Automobile" means all passenger cars or passenger car derivatives capable of seating 12 or fewer passengers.

(4) "Flashoff area" means the space between the application area and the oven.

(5) "Light-duty trucks" means any motor vehicles rated at 3864 kilograms (8500 pounds) gross weight or less which are designed primarily for purpose of transportation or are derivatives of such vehicles except automobiles.

(b) This Regulation applies, in accordance with Regulations .0907 through .0911 of this Section, to the application area(s), flashoff area(s), and oven(s), of automotive and light-duty truck manufacturing plants involved in prime, topcoat and final repair coating operations.

(c) No owner or operator of an automotive or light-duty truck manufacturing plant subject to this Regulation may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of:

(1) 0.14 kilograms per liter of coating (1.2 pounds per gallon), excluding water, delivered to the applicator from prime application, flashoff area, and oven operations:

(2) 0.34 kilograms per liter of coating (2.8 pounds per gallon), daily weighted average, excluding water, delivered to the applicator from final repair application, flashoff area, and oven operation.

(3) 0.58 kilograms per liter of coating (4.8 pounds per gallon), excluding water, delivered to the applicator from final repair application, flashoff area, and oven operation.

(d) The design, operation, and efficiency of any capture system or control device used in conjunction with this Regulation shall be certified in writing by the owner or operator and approved by the director.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(5);
Eff. July 1,1979

.0918 CAN COATING

(a) For the purpose of this Regulation, the following definitions apply:

(1) "End sealing compound" means a synthetic rubber compound which is coated onto can ends and which functions as a gasket when the end is assembled on the can.

(2) "Exterior base coating" means a coating applied to the exterior of a can to provide exterior protection to the metal and to provide background for the lithographic or printing operation.

(3) "Interior base coating" means a coating applied by roller coater or spray to the interior of a can to provide a protective lining between the can metal and product.

(4) "Interior body spray" means a coating sprayed on the interior of the can body to provide a protective film between the product and the can.

(5) "Overvarnish" means a coating applied directly over ink to reduce the coefficient of friction, to provide gloss, and to protect the finish against abrasion and corrosion.

(6) "Three-piece can side-seam spray" means a coating sprayed on the exterior and interior of a welded, cemented, or soldered seam to protect the exposed metal.

(7) "Two piece can exterior end coating" means a coating applied by roller coating or spraying to the exterior end of a can to provide protection to the metal.

(b) This Regulation applies, in accordance with Regulations .0907 through .0911 of this Section, to coating applicator(s) and oven(s) of sheet, can, or end coating lines involved in sheet basecoat (exterior and interior) and overvarnish; two-piece can interior body spray; two-piece can exterior end (spray or roll coat); three-piece can side-seam spray and end sealing compound operations.

(c) No owner or operator of a can coating line subject to this Regulation may cause, allow, or permit the discharge into the atmosphere of any volatile organic compound in excess of:

(1) 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water, delivered to the coating applicator from sheet baseboat (exterior and interior) and overvarnish or two-piece can exterior (base-coat and overvarnish) operations;

(2) 0.51 kilograms per liter of coating (4.2 pounds per gallon), excluding water, delivered to the coating applicator from two and three-piece can interior body spray and two-piece can exterior end (spray or roll coat) operations;

(3) 0.66 kilograms per liter of coating (5.5 pounds per gallon), excluding water, delivered to the coating applicator from a three-piece can side-seam spray operations;

(4) 0.44 kilograms per liter of coating (3.7 pounds per gallon), excluding water, delivered to the coating applicator from end sealing compound operations.

(d) The design, operation, and efficiency of any capture system or control device used in conjunction with this Regulation shall be certified in writing by the owner or operator and approved by the director.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(5);
Eff. July 1, 1979.

.0919 COIL COATING

(a) For the purpose of this Regulation, the following definitions apply:

(1) "Coil coating" means the coating of any flat metal sheet or strip that comes in rolls or coils.

(2) "Quench area" means a chamber where the hot metal exiting the oven is cooled by either a spray of water or a blast of air followed by water cooling.

(b) This Regulation applies, in accordance with Regulations .0907 through .0911 of this Section, to the coating applicator(s) oven(s), and quench area(s) of coil coating lines involved in prime and top coat or single coat operations.

(c) No owner or operator of a coil coating line subject to this Regulation may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 0.31 kilograms per liter of coating (2.6 pounds per gallon), excluding water, delivered to the coating applicator from prime and topcoat or single coat operations.

(d) The design, operation, and efficiency of any capture system or control device used in conjunction with this Regulation shall be certified in writing by the owner or operator and approved by the director.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(5);
Eff. July 1, 1979.

.0920 PAPER COATING

(a) For the purpose of this Regulation, the following definitions apply:

(1) "Knife coating" means the application of a coating material to a substrate by means of drawing the substrate beneath a knife that spreads the coating evenly over the full width of the substrate.

(2) "Paper coating" means coatings put on paper and pressure sensitive tapes regardless of substrate; the coatings are distributed uniformly across the web. Related web coating processes on plastic film and decorative coatings on metal foil are included in this definition.

(3) "Roll coating" means the application of a coating material to a substrate by means of hard rubber or steel rolls.

(4) "Rotogravure coating" means the application of a coating material to a substrate by means of a roll coating technique in which the substance to be applied is temporarily retained in etchings on the coating roll. The coating material is picked up in these recessed areas and is transferred to the substrate.

(b) This Regulation applies, in accordance with Regulations .0907 through .0911 of this Section, to roll, knife or rotogravure coater(s) and drying oven(s) of paper coating lines.

(c) This Regulation does not apply to
  (1) the graphic arts or printing, or
  (2) processes in which the coating is not distributed uniformly across the web, or
  (3) processes where both coating and printing are performed on the same machine.

(d) No owner or operator of a paper coating line subject to this Regulation may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 0.35 kilograms per liter of coating (2.9 pounds per gallon), excluding water, delivered to the coating applicator from a paper coating line.

(e) The design, operation, and efficiency of any capture system or control device used in conjunction with this Regulation shall be certified in writing by the owner or operator and approved by the director.

History Note: Statutory Authority G.S. 143-215.2(a)(1);
143-215.107(a)(5);
Eff. July 1, 1979.

.0921 FABRIC AND VINYL COATING

(a) For the purpose of this Regulation, the following definitions apply:

(1) "Fabric coating" means the coating of a textile substance with a knife, roll, rotogravure, a rotary screen, or flat screen coater to impart properties that are not initially present, such as strength, stability, water or acid repellancy, or appearance. Printing on textile fabric for decorative or other purposes is not part of this definition.

(2) "Knife coating" means the application of a coating material to a substrate by means of drawing the substrate beneath a knife which spreads the coating evenly over the full width of the substrate.

(3) "Roll coating" means the application of a coating material to a substrate by means of hard rubber or steel rolls.

(4) "Rotogravure coating" means the application of a coating material to a substrate by means of a roll coating technique in which the pattern to be applied is etched on the coating roll. The coating material is picked up in these recessed areas and is transferred to the substrate.

(5) "Vinyl coating" means applying a decorative or protective topcoat, or printing on vinyl coated fabric or vinyl sheets.

(6) "Rotary screen or flat screen coating" means the application of a coating material to a substrate by means of masking the surface and applying a color or finish using a screen either in flat form or rotary form.

(b) This Regulation applies in accordance with Regulations .0907 through .0911 of this Section, to roll, knife, rotogravure, rotary screen, or flat screen coater(s) and drying oven(s) of fabric and vinyl coating lines.

(c) No owner or operator of a fabric coating line or a vinyl coating line subject to this Regulation may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of:

(A) 0.35 kilograms per liter of coating (2.9 pounds per gallon), excluding water, delivered to the coating applicator from a fabric coating line;

(B) 0.45 kilograms per liter of coating (3.8 pounds per gallon), excluding water, delivered to the coating applicator from a vinyl coating line.

(d) The design, operation, and efficiency of any capture system or control device used in conjunction with this Regulation shall be certified in writing by the owner or operator and approved by the director.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(5);
Eff. July 1, 1979.

.0922 METAL FURNITURE COATING

(2) For the purpose of this Regulation, the following definitions apply:

(1) "Application area" means the area where the coating is applied by spraying, dipping, or flowcoating techniques.

(2) "Metal furniture coating" means the surface coating of any furniture made of metal or any metal part which will be assembled with other metal, wood, fabric, plastic, or glass parts to form a furniture piece.

(b) This Regulation applies, in accordance with Regulations .0907 through .0911 of this Section, to the application area(s). flashoff area(s), and oven(s) of metal furniture coating lines involved in prime and topcoat or single coating operations.

(c) No owner or operator of a metal furniture coating line subject to this Regulation may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 0.36 kilograms per liter of coating (3.0 pounds per gallon), excluding water, delivered to the coating applicator from prime and topcoat or single coat operations.

(d) The design, operation, and efficiency of any capture system or control device used in conjunction with this Regulation shall be certified in writing by the owner or operator and approved by the director.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(5);
Eff. July 1, 1979.

.0923 SURFACE COATING OF LARGE APPLIANCES

(a) For the purpose of this Regulation, the following definitions apply:

(1) "Application area" means the area where the coating is applied by spraying, dipping, or flowcoating techniques.

(2) "Single coat" means a single film of coating applied directly to the metal substrate omitting the primer application.

(3) "Large appliances" means doors, cases, lids, panels, and interior support parts of residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners, and other similar products.

(b) This Regulation applies, in accordance with Regulations .0907 through .0911 of this Section, to application area(s), flashoff area(s), and oven(s) of large appliance coating lines involved in prime, single, or topcoat coating operations.

(c) This Regulation does not apply to the use of quick-drying lacquers for repair of scratches and nicks which occur during assembly, provided that the volume of coating does not exceed 0.95 liters (one quart) in any one eight-hour period.

(d) No owner or operator of a large appliance coating line subject to this Regulation may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water, delivered to the coating applicator from prime, single, or topcoat coating operations.

(e) The design, operation, and efficiency of any capture system or control device used in conjunction with this Regulation shall be certified in writing by the owner or operator and approved by the director.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(5);
Eff. July 1, 1979.

.0924 MAGNET WIRE COATING

(a) For the purpose of this Regulation, "magnet wire coating" means the process of applying a coating of electrically insulating varnish or enamel to aluminum or copper wire for use in electrical machinery.

(b) This Regulation applies, in accordance with Regulations .0907 through .0911 of this Section, to the oven(s) of magnet wire coating operations.

(c) No owner or operator of a magnet wire coating oven subject to this Regulation may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 0.20 kilograms per liter of coating (1.7 pounds per gallon), excluding water, delivered to the coating applicator from magnet wire coating operations.

(d) The design, operation, and efficiency of any capture system or control device used in conjunction with this Regulation shall be certified in writing by the owner or operator and approved by the director.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(5);
Eff. July 1, 1979.

.0925 PETROLEUM LIQUID STORAGE

(a) For the purpose of this Regulation, the following definitions apply:

(1) "Condensate" means hydrocarbon liquid separated from natural gas which condenses due to changes in the temperature and/or pressure and remains liquid at standard conditions.

(2) "Crude oil" means a naturally occurring mixture which consists of hydrocarbons and/or sulfur, nitrogen and/or oxygen derivatives of hydrocarbons and which is a liquid at standard conditions.

(3) "Custody transfer" means the transfer of produced crude oil and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipeline or any other forms of transportation.

(4) "External floating roof" means a storage vessel cover in an open top tank consisting of a double deck or pontoon single deck which rests upon and is supported by the petroleum liquid being contained and is equipped with a closure seal or seals to close the space between the roof edge and tank shell.

(5) "Internal floating roof" means a cover or roof in a fixed roof tank which rests upon or is floated upon the petroleum liquid being contained, and is equipped with a closure seal or seals to close the space between the roof edge and tank shell.

(6) "Petroleum liquids" means crude oil, condensate, and any finished or intermediate products manufactured or extracted in a petroleum refinery.

(7) "Petroleum refinery" means any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of crude oils, or through redistillation, cracking, extraction, or reforming of unfinished petroleum derivatives.

(8) "True vapor pressure" means the equilibrium partial pressure exerted by a petroleum liquid as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, "Evaporation Loss From Floating Roof Tanks," 1962.

(b) This Regulation applies, in accordance with Regulations .0907 through .0911 of this Section, to all fixed roof storage vessels with capacities greater than 150,000 liters (39,000 gallons) containing volatile petroleum liquids whose true vapor pressure is greater than 10.5 kilo-Pascals (1.52 psia).

(c) This Regulation does not apply to volatile petroleum liquid storage vessels:

(1) equipped with external floating roofs, or

(2) having capacities less than 1,600,000 liters (416,000 gallons) used to store produced crude oil and condensate prior to lease custody transfer.

(d) Except as provided under Subdivision (c) of this Regulation, no owner or operator of an affected source under Subdivision (b) of this Regulation shall permit the use of such source unless:

(1) The source has been retrofitted with an internal floating roof equipped with a closure seal, or seals, to close the space between the roof edge and tank wall; or

(2) The source has been retrofitted with equally effective alternative control, approved by the director; and

(3) The source is maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or materials; and

(4) All operings, except stub drains are equipped with covers, lids, or seals such that:

  - (A) The cover, lid, or seal is in the closed position at all times except when in actual use; and
  - (B) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and
  - (C) Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting; and
- (5) Routine visual inspections are conducted through roof hatches once per month; and
- (6) A complete inspection of cover and seal is conducted whenever the tank is emptied for maintenance, shell inspection, cleaning, or for other nonoperational reasons or whenever excessive vapor leakage is observed; and
- (7) Records are maintained in accordnace with Regulation .0903 of this Section that shall include:
  - (A) reports of the results of inspections conducted under Subdivisions (d)(5) and (d)(6) of this Regulation, and
  - (B) a record of the average monthly storage temperature, and true vapor pressures of volatile petroleum liquids stored, and
  - (C) records of the throughput quantities and types of volatile petroleum liquids for each storage vessel.

History Note: Statutory Authority G.S. 143-215.2(a)(1);
143-215.68; 143-215.107(a)(5);
Eff. July 1, 1979.

.0926 BULK GASOLINE PLANTS

(a) For the purpose of this Regulation, the following definitions apply:

- (1) "Bottom filling" means the filling of a tank truck or stationary storage tank through an opening that is flush with the tank bottom.
- (2) "Bulk gasoline plant" means a gasoline storage and distribution facility which has an average daily throughput of less than 76,000 liters (20,000 gallons) of gasoline and which usually receives gasoline from bulk terminals by trailer transport, stores it in tanks, and subsequently dispenses it via account trucks to local farms, businesses, and service stations.
- (3) "Bulk gasoline terminal" means a gasoline storage facility which usually receives gasoline from refineries primarily by pipeline, ship, or barge; and

delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by tank truck; and has an average daily throughput of more than 76,000 liters (20,000 gallons) of gasoline.

(4) "Gasoline" means any petroleum distillate having a Reid vapor pressure of 27.6 kilo-Pascals (four psia) or greater.

(5) "Splash filling" means the filling of a tank truck or stationary storage tank through a pipe or hose whose discharge opening is above the surface level of the liquid in the tank being filled.

(6) "Submerged filling" means the filling of a tank truck or stationary tank through a pipe or hose whose discharge opening is entirely submerged when the pipe normally used to withdraw liquid from the tank can no longer withdraw any liquid, or whose discharge opening is entirely submerged when the liquid level is six inches (15.25 cm) above the bottom of the tank.

(7) "Vapor balance system" means a combination of pipes or hoses which create a closed system between the vapor spaces of an unloading tank and a receiving tank such that vapors displaced from the receiving tank are transferred to the tank being unloaded.

(b) This Regulation applies, in accordance with Regulations .0907 through .0911 of this Section, to the unloading, loading, and storage facilities of all bulk gasoline plants and of all tank truc or trailers delivering or receiving gasoline at bulk gasoline plants.

(c) This Regulation does not apply to stationary storage tanks of less than 3,000 liters (528 gallons) capacity and to gasoline bulk plants with an average daily gasoline throughput not exceeding 4,000 gallons, provided all stationary tanks and tank trucks are equipped for submerged filling or bottom filling.

(d) Except as provided under Subdivision (c) of this Regulation, no owner or operator of a bulk gasoline plant may permit stationary storage tanks to load or unload gasoline unless each tank is equipped with a vapor balance system as described under Subdivision (g) of this Regulation and approved by the director; and:

(1) Each tank is equipped with a submerged fill pipe; or

(2) Each tank is equipped with a fill line whose discharge opening is flush with the bottom of the tank.

(e) Except as provided under Subdivision (c) of this Regulation, no owner or operator of a bulk gasoline plant, tank truck or trailer may permit the loading or unloading of tank trucks or trailers at a bulk gasoline plant unless each tank truck or trailer is equipped with a vapor balance system as described under Subdivision (g) of this Regulation and approved by the director; and:

(1) Equipment is available at the bulk gasoline plant to provide for the submerged filling of each tank truck or trailer; or
(2) Each tank truck or trailer is equipped for bottom filling.

(f) Except as provided under Subdivision (c) of this Regulation, no owner or operator of a bulk gasoline plant, tank truck or trailer may permit the transfer of gasoline between tank truck or trailer and stationary storage tank unless:

(1) The transfer is conducted in accordance with Subdivisions (d) and (e) of this Regulation; and
(2) The vapor balance system is in good working order and is connected and operating; and
(3) Tank truck or trailer hatches are closed at all times during loading operations; and
(4) The tank trucks' or trailers' pressure/vacuum relief valves and hatch covers and the truck tanks or storage tanks or associated vapor and liquid lines are vapor tight during loading or unloading; and
(5) The pressure relief valves on storage vessels and tank trucks or trailers are set to release at the highest possible pressure (in accordance with state or local fire codes or the National Fire Prevention Association guidelines).

(g) Vapor balance systems required under Subdivisions (d) and (e) of this Regulation shall consist of the following major components:

(1) a vapor space connection on the stationary storage tank equipped with fittings which are vapor tight and will be immediately closed upon disconnection so as to prevent release of organic material; and
(2) a connecting pipe or hose equipped with fittings which are vapor tight and will be immediately closed upon disconnection so as to prevent release of organic material; and
(3) a vapor space connection on the tank truck or trailer equipped with fittings which are vapor tight and will be immediately closed upon disconnection so as to prevent release of organic material; or
(4) a system demonstrated to have control efficiency equivalent to or greater than provided under Subdivisions (g)(1) through (g)(3) of this Regulation and approved by the director.

(h) No owner or operator of a bulk gasoline plant may permit gasoline to be spilled, discarded in sewers, stored in open containers,or handled in any other manner that would result in evaporation.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(5);
Eff.July 1, 1979.

.0927 BULK GASOLINE TERMINALS

(a) For the purpose of this Regulation, the following definitions apply:

(1) "Bulk gasoline terminal" means a gasoline storage facility which usually receives gasoline from refineries primarily by pipeline, ship, or barge; and delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by tank truck; and has an average daily throughput of more than 76,000 liters (20,000 gallons) of gasoline.

(2) "Gasoline" means a petroleum distillate having a Reid vapor pressure of 27.6 kilo-Pascals (four psia) or greater.

(b) This Regulation applies, in accordance with Regulations .0907 through .0911 of this Section, to bulk gasoline terminals and the appurtenant equipment necessary to load the tank truck or trailer compartments.

(c) No person may load gasoline into any tank trucks or trailers from any bulk gasoline terminal unless:

(1) The bulk gasoline terminal is equipped with a vapor control system, capable of complying with Subdivision (d) of this Regulation, properly installed, in good working order, and in operation; and

(2) Displaced vapors and gases are vented only to the vapor control system; and

(3) A means is provided to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected; and

(4) All loading and vapor lines are equipped with fittings which make vapor-tight connections and which are immediately closed upon disconnection.

(d) Sources regulated by Subdivision (c)(1) of this Regulation may not allow mass emissions of volatile organic compounds from control equipment to exceed 80 milligrams per liter (4.7 grains per gallon) of gasoline loaded.

(e) Sources regulated by Subdivision (b) of this Regulation may not

(1) allow gasoline to be discarded in sewers or stored in open containers or handled in any manner that would result in evaporation, nor

(2) allow the pressure in the vapor collection system to exceed the tank truck or trailer pressure relief settings.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(5);
Eff. July 1, 1979.

.0928 GASOLINE SERVICE STATIONS STAGE I

(a) For the purpose of this Regulation, the following definitions apply:

(1) "Gasoline" means a petroleum distillate having a Reid vapor pressure of 27.6 kilo-Pascals (four psia) or greater.
(2) "Delivery vessel" means tank trucks or trailers equipped with a storage tank and used for the transport of gasoline from sources or supply to stationary storage tanks of gasoline dispensing facilities.
(3) "Submerged fill pipe" means any fill pipe with a discharge opening which is entirely submerged when the pipe normally used to withdraw liquid from the tank can no longer withdraw any liquid, or which is entirely submerged when the level of the liquid is six inches (15.25 cm) above the bottom of the tank.
(4) "Owner" means any person who has legal or equitable title to the gasoline storage tank at a facility.
(5) "Operator" means any person who leases, operates, controls, or supervises a facility at which gasoline is dispersed.
(6) "Gasoline dispensing facility" means any site where gasoline is dispersed to motor vehicle gasoline tanks from stationary storage tanks.
(7) "Gasoline service station" means any gasoline dispensing facility where gasoline is sold to the motoring public from stationary storage tanks.

(b) This Regulation applies, in accordance with Regulations .0907 through .0911 of this Section, to all gasoline dispensing facilities and gasoline service stations.

(c) This Regulation does not apply to:

(1) transfers made to storage tanks of gasoline dispensing facilities or gasoline service stations equipped with floating roofs or their equivalent which have been approved by the director;

(2) stationary tanks with a capacity of not more than 7,580 liters (2,000 gallons) which are in place before July 1, 1979, provided that the tanks are equipped with a submerged fill pipe;

(3) stationary storage tanks with a capacity of not more than 2,085 liters (550 gallons) which are installed after June 30, 1979, provided the tanks are equipped with a submerged fill pipe;

(4) stationary storage tanks at gasoline dispensing facility or gasoline service stations where the combined annual throughput of gasoline at the facility or station does not exceed 1,892 hectoliters (50,000 gallons), provided the tanks are equipped with submerged fill pipes.

(d) Except as provided under Subdivision (c) of this Regulation, no owner or operator may transfer or cause or allow the transfer of gasoline from any delivery vessel into any stationary storage tank unless:

(1) The tank is equipped with a submerged fill pipe, and the vapors displaced from the storage tank during filling are controlled by a vapor control system in accordance with Subdivision (e) of this Regulation; and

(2) The vapor control system is in good working order and is connected and operating; and

(3) The vapor control system is properly maintained and all torn or malfunctioning components or elements of design are repaired, replaced or modified; and

(4) Gauges, meters, or other specified testing devices are maintained in proper working order; and

(5) The following records, as a minimum, are kept in accordance with Regulation .0903:

 (A) the scheduled date for maintenance or the date that a malfunction was detected; and

 (B) the date the maintenance was performed or the malfunction corrected; and

 (C) the component or element of design of the control system repaired, replaced, or modified.

(e) The vapor control system required by Subdivision (d) of this Regulation shall include one or more of the following:

(1) a vapor-tight line from the storage tank to the delivery vessel and a system which will ensure the vapor line is connected before gasoline can be transferred into the tank; or,

(2) a refrigeration-condensation system or equivalent designed to recover at least 90 percent by weight of the organic compounds in the displaced vapor; or

(3) a system demonstrated to have control efficiency equivalent to or greater than provided under Subdivision (e)(1) or (e)(2) of this Regulation and approved by the director.

(f) The vapor-laden delivery vessel:
  - (1) shall be designed and maintained to be vapor-tight during loading and unloading operations and during transport with the exception of normal pressure vacuum venting as required by regulations of the Department of Transportation; and
  - (2) shall, if it is refilled in a nonattainment area for ozone in North Carolina, be refilled only at:
    - (A) bulk gasoline plants complying with Regulation .0926, or
    - (B) bulk gasoline terminals complying with Regulation .0927.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.68; 143-215.107(a)(5);
Eff. July 1, 1979

.0929 PETROLEUM REFINERY SOURCES

(a) For the purpose of this Regulation, the following definitions apply:

(1) "Accumulator" means the reservoir of a condensing unit receiving the condensate from the condenser.

(2) "Condenser" means any heat transfer device used to liquefy vapors by removing their latent heats of vaporization. Such devices include, but are not limited to, shell and tube, coil, surface, or contact condensers.

(3) "Firebox" means the chamber or compartment of a boiler or furnace in which materials are burned but does not mean the combustion chamber of an incinerator.

(4) "Forebays" mean the primary sections of a wastewater separator.

(5) "Hot well" means the reservoir of a condensing unit receiving the warm condensate from the condenser.

(6) "Petroleum refinery" means any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation, cracking, extraction, or reforming of unfinished petroleum derivatives.

(7) "Refinery fuel gas" means any gas which is generated by a petroleum refinery process unit and which is combusted, including any gaseous mixture of natural gas and fuel gas.

(8) "Turnaround" means the procedure of shutting a refinery unit down after a run to do necessary maintenance and repair work and putting the unit back on stream.

(9) "Vacuum producing system" means any reciprocating, rotary, or centrifugal blower or compressor, or any jet ejector or device which takes suction from a pressure below atmospheric and discharges against atmospheric pressure.

(10) "Vapor recovery system" means a system which prevents release to the atmosphere of no less than 90 percent by weight of organic compounds emitted during the operation of any transfer, storage, or process equipment.

(11) "Wastewater (oil/water) separator" means any device or piece of equipment which utilizes the difference in density between oil and water to remove oil and associated chemicals from water or any device, such as a flocculation tank, clarifier, etc., which removes petroleum derived compounds from wastewater.

(b) This Regulation applies, in accordance with Regulations .0907 through .0911 of this Section, to vacuum producing systems, wastewater separators, and process unit turnarounds at petroleum refining sources.

(c) The owner or operator of any vacuum producing systems at a petroleum refinery may not permit the emissions of any noncondensable volatile organic compounds from the condensers, hot wells, or accumulators of the system.

(d) The emission limit under Subdivision (c) of this Regulation shall be achieved by:

(1) piping the noncondensable vapors to a firebox or incinerator; or
(2) compressing the vapors and adding them to the refinery fuel gas; or
(3) a control system, demonstrated to have control efficiency equivalent to or greater than Subdivision (d)(1) or (d)(2) of this Regulation and approved by the director.

(e) The owner or operator of any wastewater (oil/water) separators at a petroleum refinery shall:

(1) provide covers and seals approved by the director, on all separators and forebays; and
(2) equip all openings in covers, separators, and forebays with lids or seals such that the lids or seals are in the closed position at all times except when in actual use.

(f) Notwithstanding Regulations .0907 through .0911 of this Section, before November 1, 1979, the owner or operator of an existing (as of June 30, 1979) petroleum refinery shall develop and submit to the director for approval a detailed procedure for minimization of volatile organic compound emissions during process unit turnaround. As a minimum, the procedure shall provide for:

(1) depressurization venting of the process unit or vessel to a vapor recovery system, flare, or fire-box; and
(2) no emission of volatile organic compounds from a process unit or vessel until its internal pressure is 136 kilo-Pascals (19.7 psia) or less; and
(3) recordkeeping of the following items in accordance with Regulation .0903 of this Section:
    (A) every date that each process unit or vessel is shut down, and
    (B) the approximate vessel volatile organic compound concentration when the volatile organic compounds were first discharged to the atmosphere, and

(C) the approximate total quantity of volatile organic compounds emitted to the atmosphere.

New petroleum refineries shall submit such a procedure with the permit application.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.68; 143-215.107(a)(5);
Eff.July 1, 1979.

.0930 SOLVENT METAL CLEANING

(a) For the purpose of this Regulation, the following definitions apply:

(1) "Cold cleaning" means the batch process of cleaning and removing soils from metal surfaces by spraying, brushing, flushing, or immersion while maintaining the solvent below its boiling point. Wipe cleaning is not included in this definition.

(2) "Conveyorized degreasing" means the continuous process of cleaning and removing soils from metal surfaces by operating with either cold or vaporized solvents.

(3) "Freeboard height" means for vapor degreasers the distance from the top of the vapor zone to the top of the degreaser tank. For cold cleaners, freeboard height means the distance from liquid solvent level in the degreaser tank to the top of the tank.

(4) "Freeboard ratio" means the freeboard height divided by the width of the degreaser.

(5) "Open top vapor degreasing" means the batch process of cleaning and removing soils from metal surfaces by condensing hot solvent vapor on the colder metal parts.

(6) "Solvent metal cleaning" means the process of cleaning soils from metal surfaces by cold cleaning or open top vapor degreasing or conveyorized degreasing.

(b) This Regulation applies, in accordance with Regulations .0907 through .0911 of this Section, to cold cleaning, open top vapor degreasing, and conveyorized degreasing operations.

(c) The provisions of this Regulation shall apply with the following exceptions:

(1) open top vapor degreasers with an open area smaller than one square meter (10.8 square feet) shall be exempt from Subdivision (e)(3) of this Regulation; and

(2) Conveyorized degreasers with an air/vapor interface smaller than 2.0 square meters (21.6 square feet) shall be exempt from Subdivision (f)(2) of this Regulation.

(d) Except as provided under Subdivision (c) of this Regulation, the owner or operator of a cold cleaning facility shall;

- (1) equip the cleaner with a cover and the cover shall be so designed that it can be easily operated with one hand, if:
  - (A) The solvent volatility is greater than Two kilo-Pascals (15 milimeters of mercury or 0.3 pounds per square inch) measured at 38°C (100°F); or,
  - (B) The solvent is agitated; or
  - (C) The solvent is heated; and
- (2) equip the cleaner with a facility for draining cleaned parts and the drainage facility shall be constructed internally so that parts are enclosed under the cover while draining if the solvent volatility is greater than 4.3 kilo-Pascals (32 millimeters of mercury or 0.6 pounds per square inch) measured at 38°C (100°F), except that the drainage facility may be external for applications where an internal type cannot fit into the cleaning system; and
- (3) install one of the following control devices if the solvent volatility is greater than 4.3 kilo-Pascals (33 millimeters of mercury or 0.6 pounds per square inch) measured at 38°C (100°F), or if the solvent is heated above 50°C (120°F):
  - (A) freeboard which gives a freeboard ratio greater than or equal to 0.7; or
  - (B) water cover (solvent must be insoluble in and heavier than water); or
  - (C) other systems of equivalent control, such as refrigerated chiller or carbon adsorption, approved by the director; and
- (4) provide a permanent, conspicuous lable, summarizing the operating requirements; and
- (5) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into the atmosphere; and
- (6) close the cover whenever parts are not being handled in the cleaner; and
- (7) drain the cleaned parts for a least 15 seconds or until dripping ceases; and
- (8) if used, supply a solvent spray which is a solid fluid steam (not a fine, atomized, or shower type spray) at a pressure which does not cause excessive splashing.

(e) Except as provided under Subdivision (c) of the Regulation, the owner or operator of an open top vapor degreaser shall:

(1) equip the vapor degreaser with a cover which can be opened and closed easily without disturbing the vapor zone; and

(2) provide the following safety switches or devices:
   (A) a condenser flow switch and thermostat or other device which prevents heat input if the condenser coolant is either not circulating or too warm, and
   (B) a spray safety switch or other device which shuts off the spray pump if the vapor level drops more than 25.4 centimeters (10 inches), and
   (C) a vapor level control thermostat or other device which prevents heat input when the vapor level rises too high; and

(3) install one of the following control devices:
   (A) Freeboard ratio greater than or equal to 0.75, and if the degreaser opening is greater than one square meter, the cover must be powered; or
   (B) refrigerated chiller; or
   (C) enclosed design (cover or door opens only when the dry part is actually entering or existing the degreaser); or
   (D) carbon adsorption system, with ventilation greater than or equal to 15 cubic meters per minute per square meter (50 cubic feet per minute per square foot) of air/vapor area (when cover is open), and exhausting less than 25 parts per million of solvent averaged over one complete adsorption cycle; or
   (E) a control system, demonstrated to have control efficiency equivalent to or greater than any of the above, and approved by the director; and

(4) keep the cover closed at all times except when processing work loads through the degreaser; and

(5) minimize solvent carryout by
   (A) racking parts to allow complete drainage, and
   (B) moving parts in and out of the degreaser at less than 3.3 meters per minute (11 feet per minute), and
   (C) holding the parts in the vapor zone at least 30 seconds or until condensation ceases, and
   (D) tipping out any pools of solvent on the cleaned parts before removal from the vapor zone, and
   (E) allowing parts to dry within the degreaser for at least 15 seconds or until visually dry; and

(6) not degrease porous or absorbent materials, such as cloth, leather, wood,or rope; and

(7) not occupy more than half of the degreaser's open top area with a workload; and

(8) not load the degreaser to the point where the vapor level would drop more than 25.4 centimeters (10 inches) when the workload is removed from the vapor zone; and

(9) always spray below the vapor level; and

(10) repair solvent leaks immediately or shutdown the degreaser; and

(11) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into the atmosphere; and

(12) not operate the cleaner so as to allow water to be visually detectable in solvent exiting the water separator; and

(13) not use ventilation fans near the degreaser opening, nor provide exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) of degreaser open area, unless necessary to meet OSHA requirements (OSHA is the U.S. Occupational Safety and Health Administration; in North Carolina the N. C. Labor Department has delegation of OSHA programs); and

(14) provide a permanent, conspicuous label, summarizing the operating procedures of Subdivisions (e)(4) through (e)(12) of this Regulation.

(f) Except as provided under Subdivision (c) of this Regulation, the owner or operator of a conveyorized degreaser shall:

(1) not use workplace fans near the degreaser opening, nor provide exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cfm per square foot) of degreaser opening, unless necessary to meet OSHA requirements; and,

(2) install one of the following control devices:

  (A) refrigerated chiller; or,

  (B) carbon adsoption system, with ventilation greater than or equal to 15 cubic meters per minute per square meter (50 cubic feet per minute per square foot) of air/vapor area (when downtime covers are open), and exhausting less than 25 parts per million of solvent by volume averaged over a complete adsorption cycle; or,

  (C) a system, demonstrated to have a control efficiency equivalent to or greater than Subdivision (f)(2)(A) or (f)(2)(B) of this Regulation, and approved by the director; and,

(3) equip the cleaner with equipment, such as a drying tunnel or rotating (tumbling) basket, sufficient to prevent cleaned parts from carrying out solvent liquid or vapor; and,

(4) provide the following safety switches or devices:
  (A) a condenser flow switch and thermostat or other device which prevents heat input if the condenser coolant is either not circulating or too warm, and,
  (B) a spray safety switch or other device which shuts off the spray pump or the conveyor if the vapor level drops more than 25.4 centimeters (10 inches), and
  (C) a vapor level control thermostat or other device which prevents heat input when the vapor level rises too high; and,

(5) minimize openings during operation so that entrances and exits will silhouette workloads with an average clearance between the parts and the edge of the degreaser opening of less than 10 centimeters (four inches) or less than 10 percent of the width of the opening; and

(6) provide downtime covers for closing off the entrance and exit during shutdown hours; and

(7) minimize carryout emissions by:
  (A) racking parts for best drainage; and
  (B) maintaining the vertical conveyor speed at less than 3.3 meters per minute (11 feet per minute); and

(8) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into the atmosphere; and

(9) repair solvent leaks immediately, or shut down the degreaser; and

(10) not operate the cleaner so as to allow water to be visually detectable in solvent exiting the water separator; and

(11) place downtime covers over entrances and exits or conveyorized degreasers immediately after the conveyors and exhausts are shut down and not remove them until just before start-up.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(5);
Eff.July 1, 1979.

.0931 CUTBACK ASPHALT

(a) For the purpose of this Regulation, the following definitions apply:

(1) "Asphalt" means a dark-brown to black cementitious material (solid, semisolid, or liquid in consistency) in which the predominating constituents are bitumens which occur in nature as such or which are obtained as residue in refining petroleum.

(2) "Cutback asphalt" means asphalt cement which has been liquefied by blending with petroleum solvents (diluents). Upon exposure to atmospheric conditions, the diluents evaporate, leaving the asphalt cement to perform its function.

(3) "Emulsified asphalt" means an emulsion of asphalt cement and water which contains a small amount of an emulsifying agent; a heterogeneous system containing two normally immiscible phases (asphalt and water) in which the water forms the continuous phase of the emulsion, and minute globules of asphalt form the discontinuous phase.

(4) "Penetrating prime coat" means an application of low-viscosity liquid asphalt to an absorbent surface. It is used to prepare an untreated base for an asphalt surface. The prime penetrates the base and plugs the voids, hardens the top, and helps bind it to the overlying asphalt course. It also reduces the necessity of maintaining an untreated base course prior to placing the asphalt pavement.

(b) This Regulation applies, as of September 1, 1979, to the manufacture and use of cutback asphalts for the purpose of paving or maintaining road, highways, streets, parking lots, driveways, curbs, sidewalks, airfields (runways, taxiways, and parking aprons), recreational facilities (tennis courts, playgrounds, and trails), and other similar structures.

(c) No person may cause, allow, or permit the manufacture, mixing, storage, use, or application of cutback except where:

(1) Long-life (one month or more) stockpile storage is necessary; or

(2) The use or application at ambient temperatures less than 10°C as measured by the nearest National Weather Service Field Office or Federal Aviation Administration Station, is necessary; or

(3) The cutback asphalt is to be used solely as a penetrating prime coat; or

(4) The user can demonstrate to the director that there are no volatile organic compound emissions under conditions of normal use.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(5);
Eff. July 1, 1979.
Amended Eff. June 1, 1980

measured by the nearest + National Weather Service

SUBCHAPTER 2H

SECTION .0600 - AIR QUALITY PERMITS

.0601 PURPOSE AND SCOPE

(a) This Section implements G.S. 143-215.108 and 143-215.109 concerning permits for sources of air pollution and complex sources.

(b) After the effective date of any air quality or emission control standards established pursuant to G.S. 143-215.107, no person shall do any of the following things or carry out any of the following activities which contravene or will be likely to contravene such standards until or unless such person shall have applied for and shall have received from the commission a permit therefor and shall have complied with such conditions, if any, as are prescribed by such permit:

(1) establish or operate any air contaminant source;

(2) build, erect, use or operate any equipment which may result in the emission of air contaminants or which is likely to cause air pollution;

(3) alter or change the construction or method of operation of any equipment or process from which air contaminants are or may be emitted;

(4) enter into a contract for the construction and installation of any air cleaning device or allow or cause such device to be constructed, installed or operated.

(c) For the purposes of these regulations, all sources of any air contaminant for which there is an applicable air quality or emission control standard are considered likely to contravene the applicable standard and must apply for a permit as required in (b) of this Regulation, except that the commission has determined the following sources or activities are not likely to contravene any applicable ambient air or emission control standard, therefore are not required to obtain a permit:

(1) air conditioning or comfort ventilation systems which do not transport, remove, or exhaust product or by-product to the atmosphere;

(2) combustion sources serving heating systems which provide comfort heat for residences;

(3) laboratory equipment used for chemical or physical analysis;

(4) nonstationary internal combustion engines and vehicles;

(5) equipment which emits only nitrogen, oxygen, carbon dioxide, and/or water vapor;

(6) maintenance, repair, or replacement of existing equipment that does not result in an increase to the emission of air contaminants;

(7) smudge pots for orchards or small outdoor heating devices to prevent freezing of plants;

(8) fuel burning equipment firing exclusively gaseous fuel with the total heat input rating of 250 million BTU per hour or less;

(9) fuel burning equipment firing exclusively No. 1 or No. 2 fuel oil with the total heat input rating of 100 million BTU per hour or less;

(10) fuel burning equipment firing a mixture, the components of which may be only gaseous fuel, No. 1 fuel oil or No. 2 fuel oil, in any proportion, with the total heat input rating of 100 million BTU per hour or less.

(d) For any existing or new sources included in (b) of this Regulation and not specified in (c) of this Regulation, any person may request in writing that the director make a determination that the subject source will neither contravene nor will be likely to contravene applicable ambient air quality or emission control standards. This request shall be accompanied with documentation supporting a showing that emission control standards will not be, nor are likely to be contravened. If the documentation submitted with the request shows to the satisfaction of the director that emission control standards will not be, nor are likely to be contravened, a determination shall be made that a permit is not required, unless the staff makes a showing that, notwithstanding emission control standards, the standards for ambient air quality will be, or are likely to be contravened.

(e) This Section applies to the establishment or operation of any complex source subject to Section .0800 of Subchapter 2D of this Title. All persons who establish or operate such complex source shall be required to obtain a permit as provided in this Section, provided if such source is excepted in Section .0800 of Subchapter 2D of this Title, no permit shall be required.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.108; 143-215.109;
Eff. February 1, 1976.

.0602 DEFINITIONS

Unless the context otherwise requires, the terms used herein shall be used as defined in G.S. 143-213 and as follows:

(1) Director -- means the Director of the Division of Environmental Management;

(2) Plans and specifications -- the completed application (AQ-22 or AQ-81) and any other documents as are required to

define the operating conditions of the air contaminant emission source;

(3) To alter or change -- to modify equipment or processes of existing facilities; This shall include equipment additions, deletions, adjustments, and/or operational practices which would increase emissions or affect the compliance status of the equipment or process;

(4) Source -- the origin of emission of an air contaminant;

(5) Staff -- means the air quality section, division of environmental management, or its successor.

History Note: Statutory Authority G.S. 143-213;
143-215.3 (a) (1);
Eff. February 1, 1976.

.0603 APPLICATIONS

(a) Permit application shall be made in triplicate on official forms of the commission, and shall include plans and specifications setting forth all necessary data and information as required by the application form; air contaminant sources -- Form AQ-22, complex sources -- Form AQ-81. These forms may be obtained by writing to the address in (b) of this Rule.

(b) Permit application shall be filed in writing with the Director, Division of Environmental Management, Department of Natural Resources and Community Development, P.O. Box 27687, Raleigh, N.C. 27611.

(c) Application for renewal of an existing permit may be made by letter to the director, if no alteration or modification has been made to the permitted source subsequent to the issuance of the original permit.

(d) The director is authorized to request such information from an applicant and to conduct such inquiry or investigation as he may deem necessary, and to require the submission of plans and specifications prior to acting on any permit application.

(e) Prior to issuing any permit for a source on the Code of Federal Regulations list of sources requiring a review for prevention of significant deterioration (40 CFR 52.21 (d) (1)), or for any other source that may be designated by the director, the information submitted by the owner or operator, as well as the agency's analysis of the effect on ambient air quality, shall be made available for public inspection in at least one location in the region affected. This shall be accomplished by publishing a notice by prominent advertisement in the region affected and shall allow a 30-day period for submittal of public comment. Confidential material will be handled in accordance with G.S. 143-215.3 (a) (2).

(f) A public hearing shall be held prior to the issuance of any permit requiring controls more stringent than the applicable emission standards in Section .0500 of Subchapter 2D of this Title in order to prevent violation of the ambient air quality standards as required in Regulation .0501 of Subchapter 2D of this Title. A public hearing shall be held prior to the issuance of any permit allowing controls different than the applicable emission standards in Section .0900 of Subchapter 2D of this Title in accordance with Regulation .0905 of Subchapter 2D of this Title. The public hearing shall be preceded by a 30-day period of public notice during which the agency's analysis and draft permit shall be available for public inspection in the appropriate regional office. If and when a permit containing such conditions is issued, it will become a part of the North Carolina State Implementation Plan for Air Quality as an appendix available for inspection at Department of Natural Resources and Community Development regional offices.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.108; 143-215.109;
Eff. February 1, 1976;
Amended Eff. April 1, 1980; December 1, 1976.

.0604 FINAL ACTION ON PERMIT APPLICATIONS

(a) The director shall review and take final action on all applications within 90 days following receipt of a completed application or required additional information. All permits, renewals, or decisions denying permits shall be in writing. Failure of the director to take action on an application for a permit within the 90-day period shall be deemed as approval of such application.

(b) The director is authorized to:

(1) issue a permit or a renewal containing such conditions as are necessary to effectuate the purposes of G.S. Chapter 143, Article 21B;

(2) modify or revoke any permit upon giving 60 days notice to the person affected;

(3) deny a permit application where necessary to effectuate the purposes of G.S. Chapter 143, Article 21B.

(c) Any person whose application for a permit or renewal is denied or is granted subject to conditions which are unacceptable to such person or whose permit is modified or revoked shall have the right to a hearing upon making demand therefore within 30 days following the giving of notice by the director as to his decision upon such application.

History Note: Statutory Authority G.S. 143-215.108;
143-215.109; 143-215.3 (a) (1);
Eff. February 1, 1976.

.0605 ISSUANCE, REVOCATION, AND ENFORCEMENT OF PERMITS

(a) Permits shall be issued or renewed for a period of time deemed reasonable by the director, but in no case shall the period exceed five years.

(b) Any permit or permit renewal issued pursuant to this Regulation is subject to revocation or modification upon a determination that information contained in the application or presented in support thereof is incorrect, conditions under which the permit renewal was granted have changed, or violations of conditions contained in the permit have occurred.

(c) Failure to apply for and obtain a permit required by this Section or any violation of or failure to act in accordance with the terms, conditions, or requirements of any permit or renewal shall subject the responsible person (s) to the enforcement sanctions of G.S. 143-215.114.

History Note: Statutory Authority G.S. 143-215.3 (a) (1);
143-215.108; 143-215.109; 143-215.114;
Eff. February 1, 1976.

.0606 DELEGATION OF AUTHORITY

The director is authorized to delegate the processing of permit applications and the issuance of permits to the Air Quality Section Chief, the air quality regional engineers, or the Air Quality Chief Engineer as he deems appropriate. This delegation shall not include the authority to deny a permit application or to revoke, modify, or suspend a permit.

History Note: Statutory Authority G.S. 143-215.3 (a) (1), (4);
Eff. February 1, 1976.

.0607 COPIES OF REFERENCED FEDERAL REGULATIONS

Copies of applicable Code of Federal Regulations sections referred to in this Section are available for public inspection at Department of Natural and Economic Resources field offices, air quality section. They are: Western Field Office, Interchange Building, 159 Woodfin Street, Post Office Box 370, Asheville, North Carolina 28802; North Piedmont Field Office, 8003 Silas Creek Parkway Extension, Winston-Salem, North Carolina 27106; South Piedmont Field Office, 119 North Main Street, Mooresville, North Carolina 28115; North Central Field Office, 3800 Barrett Drive, Post Office Box 27687, Raleigh, North Carolina 27611; South Central Field Office, Wachovia Building, Suite 714, Fayetteville, North Carolina 28301; Northeastern Field Office, 1502 North Market Street, Post Office Box 1129, Washington, North Carolina 27889; Southeastern Field Office, 3143 Wrightsville Avenue, Wilmington, North Carolina 28401.

Copies of such regulations can be made at these field offices for ten cents ($0.10) per page.

History Note: Statutory Authority G.S. 150A-14;
Eff. December 1, 1976.

.0608 PERMITS FOR SOURCES IMPACTING NONATTAINMENT AREAS

(a) This Regulation applies under certain conditions to any new or modified source which is located in or significantly impacts an area which is designated by the U.S. Environmental Protection Agency to be a nonattainment area as of April 30, 1979. It applies when the new source (or all new sources at the facility taken together, if there is more than one new source) emits, or has the potential to emit, one hundred tons per year or more of the pollutant for which the designation is made (nonattainment pollutant). In the case of ozone nonattainment areas, the nonattainment pollutant is any or all volatile organic compounds except methane, ethane, and trichlorotrifluoroethane (Fluorocarbon 113). It applies when the modified source (or all modified sources having increased potential emissions at the facility taken together with all new sources, if there is more than one modified source having increased potential emission or one or more new sources in addition to the modified source) has an increased emission, or an increased potential emission, of one hundred tons per year or more of the nonattainment pollutant.

(b) This Regulation is not applicable to:

(1) complex sources of air pollution; and

more

(2) sources at a facility where the increase in allowable nonattainment pollutant emissions (calculated on the basis of the largest conceivable emissions that could exist limited only by conformance with applicable regulations and permits) would be less than 50 tons per year, 1,000 pounds per day, or 100 pounds per hour, whichever is more restrictive, provided that the daily and hourly rates apply only where Ambient Air Quality Standards have 24-hour and less-than-24-hour period Standards, respectively, and provided that decreases in the emissions of any source at the facility are not used in the calculation of total increased facility emissions for the purpose of this exemption.

(c) Subdivisions (e)(1), (e)(2), and (e)(4) of this Regulation do not apply to a modified source located in or outside of the nonattainment area when the modification consists of use of alternative fuel or raw material (unless limited by previous permit conditions), if prior to December 31, 1976, the modified source was designed to accomodate such alternative use.

(d) Subdivisions (c) and (d) of the Regulation .0601 of this Section are not applicable to any source to which this Regulation applies; such source must apply for a permit as required in Subdivision (b) of Regulation .0601 of this Section.

(e) To issue a permit to a source located in a nonattainment area and which is a source to which this Regulation applies, the director must determine that the source will meet the following requirements.

(1) The source will emit the nonattainment pollutant at a rate no more than the lowest achievable emission rate, which means for any source, that rate of emissions which refects:

(a) the most stringent emission limitation which is contained in the implementation plan of any State for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable, or

(b) the most stringent emission limitation which is achieved in practice by such class or category of source, whichever is more stringent.

In no event shall the application of this term permit a proposed new or modified source to emit any pollutant in excess of the amount allowable under applicable new source performance standards.

116

(2) The owner or operator of the proposed new or modified source has demonstrated that all sources in the State which are owned or operated by such person (or any entity controlling, controlled by, or under common control with such person) and which emit, or have the potential to emit, one hundred tons per year or more of any pollutant are subject to emission limitations and are in compliance, or on a schedule for compliance, with all applicable emission limitations and standards of this Section and of Subchapter 2D of this Chapter.

(3) The source will satisfy one of the following conditions:

(a) The source will not cause the total nonattainment pollutant emissions in the year it will begin generation or subsequent years to exceed the greater of the emissions level depicted in the appropriate graph of Actual Emissions or the emission level depicted in the graph of Reasonable Further Progress. Total nonattainment pollutant emissions, besides including the emissions from the new source, will also include emissions from existing sources and other sources which are permitted to begin operation in or prior to the same year as the new source. The appropriate graphs of Actual Emissions and Reasonable Further Progress are contained in Section XI of the North Carolina Plan for Implementing National Air Quality Standards; or,

(b) The source will obtain sufficient emission reductions of the nonattainment pollutant from other sources in the nonattainment area so that the emissions from the new source will be less than the emission reductions. Emission reductions must not include any reductions resulting from compliance (or scheduled compliance) with applicable regulations prior to the application. The difference between the emissions from the new source and the emission reductions must be sufficient to represent reasonable further progress toward attaining the Ambient Air Quality Standards. The emission reductions obtained must be legally binding before the permit for the new source may be issued. The requirements of e(3)(b) above may be partially waived if the source is required to be modified as a result of EPA regulations and no exemption from such regulations is available, and only if:

(1) the permit applicant demonstrates that it made its best efforts to obtain sufficient emissions offsets to comply with e(3)(b);

(2) the applicant has secured all available emission offsets; and

(3) the applicant will continue to seek the necessary emission offsets and apply them when they become available.

(4) The North Carolina Plan for Implementing National Air Quality Standards is being carried out for the nonattainment area in which the proposed source is located.

(f) To issue a permit to a source located outside of but significantly impacting a nonattainment area and which is a source to which this Regulation applies, the director must determine that the source will meet Subdivision (e)(1) and (e)(2) of this Regulation and the requirement that the applicant has obtained an air quality offset, i.e., has caused an air quality improvement within the nonattainment area by causing reduction in impacts of other sources greater than any additional impact caused by the source for which application is being made.

(g) To issue a permit to a source of a nonattainment pollutant for which the State has demonstrated to the satisfaction of the Administrator of the U.S. Environmental Protection Agency that attainment is not possible in the area within the period prior to December 31, 1982, despite the implementation of all reasonably available measures, the director must determine, in addition to the other requirements of this Regulation, that an analysis (produced by the permit applicant) of alternative sites, sizes, production processes, and environmental control techniques for the source demonstrates that the benefits of the source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(5);
Eff. July 1, 1979;
Amended Eff. June 1, 1980.